FLORIDA DEPARTMENT OF TRANSPORTATION

SR 869 (SAWGRASS EXPRESSWAY) WIDENING
PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

From West of US 441 (SR 7) to Powerline Road (SR 845)

FPID No.: 437153-1-22-01 • ETDM No.: 14280 • Broward County

GEOTECHNICAL REPORT

DRAFT

FEBRUARY 2024

Geotechnical Report

PD&E Roadway Report

Project Description:

PD&E Study
Turnpike Mainline / SR-869 / SW 10th Street Interchange
From West of US-441 to East of Powerline Road
Broward County, Florida
FPID No.: 437153-1-22-01

Prepared for:
FLORIDA'S TURNPIKE ENTERPRISE
Mile Post 263, Building 5315
Ocoee, FL 34761

&
The Corradino Group
5200 NW 33rd Avenue; Suite 203
Fort Lauderdale, FL 33309

Prepared by:

GCME, Inc.
1730 W. 10th Street
Riviera Beach, FL 33404

September 12, 2018

Date: September 12, 2018

Prepared by: **GCME, Inc.**

TO: The Corradino Group
5200 NW 33rd Avenue; Suite 203
Fort Lauderdale, FL 33309

Attention: Mr. Ryan Solis, P.E.
Seniot Project Manager

SUBJECT: **Geotechnical Services**
PD&E Roadway Report
PD&E Study – Turnpike Mainline / SR-869 / SW 10th Street Interchange
From West of US-441 to East of Powerline Road
Broward County, Florida
FPID No.: 437153-1-22-01
GCME Project No.: 2000-01-16001

Dear Mr. Solis,

GCME, Inc. has completed the Geotechnical Services Report – PD&E Roadway Report in connection with the subject project. The purpose of this report is to provide geotechnical information to the roadway engineers for preparation of the PD&E study documents for the proposed improvements. The following report includes the methods of study and evaluations concerning geotechnical aspects of the proposed improvements.

The work was completed following our contract with your firm and followed the basic guidelines of the Florida Department of Transportation (FDOT) Soils and Foundations Handbook, 2017. This report is written using English units.

We are pleased to be of continued service to The Corradino Group and the Florida's Turnpike Enterprise (FTE). If you have any questions or comments regarding the contents of the following report, please call.

Very truly yours,

GCME, INC.

ZHIJUN PAN LICENSE No 70634 STATE OF FLORIDA PROFESSIONAL ENGINEER

Zhijun Pan, P.E.
Project Engineer
FL Reg. No. 70634

Partha Ghosh, P.E.
Principal Engineer
FL Reg. No. 51377

ZP/PG:
2000-01-16001_PD&E_GeoRpt

TABLE OF CONTENTS

1.0 INTRODUCTION

This entire project corridor runs along SR-869 / SW 10th Street from west of US-441 to east of Powerline Road in Broward County, Florida, a distance of about 4.8 miles. The project includes widening SW 10th Street. All improvements will be within the existing right of way.

The entire project site is located in Broward County on SR-869 / SW 10th Street. Land in the project vicinity is urban. Terrain in the area is relatively flat. The subject project corridor consists of generally three (3) lanes of through traffic in each direction, eastbound and westbound.

The purpose of this study was to explore the subsurface conditions, Seasonal High Groundwater Table (SHGWT) and drainage information within the general vicinity of the proposed roadway in order to catalog the general subsurface stratigraphy and provide geotechnical recommendations to guide the design and construction of the proposed roadway. Based on available information and field exploration performed, we have prepared an engineering report summarizing our field and laboratory testing, the subsurface soil and groundwater conditions encountered and evaluation and design recommendations for roadway design and construction.

The Site Vicinity Map, Plate 1A, presents the project limits.

2.0 FIELD INVESTIGATION

2.1 Roadway

To evaluate the subsurface soil and groundwater condition along the proposed roadway alignment, roadway borings and drainage tests were performed along or proximate to the proposed roadway alignment. Subsoil along the proposed roadway alignments was explored by drilling roadway profile borings to nominal depths of 15 to 20 feet below the existing ground surface as per negotiated scope of work.

The numbering schedule and locations of the borings and tests performed for the proposed roadway widening are as follows:

- Along Median of SR-869: Twelve (12) borings, numbered R-101A, R-101B, R-101 thru R-110.
- Along South Side of SR-869: Twenty-Three (23) borings, numbered R-201A, R-201B, R-201 thru R-221.
- Along North Side of SR-869: Twenty-One (21) borings, numbered R-301A, R-301-B, R-301thru R-310, R313 thru R-321.

The following drainage tests and borings were performed at locations as requested and provided by the drainage design engineer with HDR, Inc. via email dated January 2018.

- Along Both Sides of SR-869: Twenty (20) DRIT tests, numbered DRIT-1 thru DRIT-20. Twenty (20) borings, numbered DRIT-1 thru DRIT-20.

- Along Both Sides of SR-869: Nine (9) BHP tests, numbered BHP-1 thru BHP-9.

Please note: A twenty (20) feet SPT boring was drilled at each DRIT test location. As requested by the drainage design engineer, at some areas both DRIT and BHP tests were requested proximate to each other.

Boring location plans showing the approximate location of the borings / tests performed for the project roadway corridor are presented on the plates titled "Approximate Boring Location Plan", Plates 1 through 14. The station, offset and elevation information at the boring locations are provided by the project surveyor.

The above subsurface description is of a generalized nature provided to highlight the major soil strata encountered. The records of subsurface exploration included in the boring logs should be reviewed for specific information as to individual boring locations. The stratifications shown on the records of subsurface exploration represent the conditions only at the actual boring location. The stratifications represent the proximate boundary between subsurface materials and the transition may be gradual.

3.0 USDA, SCS SOIL SURVEY

Research of the U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS) Soil Survey of the Broward County area indicates the presence of different soil map units along the roadway sections. The soil map units present along the project corridor are described in details in Appendix – A.

A segment of the USDA Soils Map showing the proposed roadway section and the surrounding areas is presented in Appendix – A.

4.0 SUBSURFACE CONDITIONS

4.1 Stratigraphy – Roadway

Soils and soil profiles found in borings drilled for the roadway alignment study generally consisted of seven (7) general types:

Stratum 1: Dark brown to brown sand with trace roots and trace organic (Topsoil / A-8).

Stratum 2: Brown to light brown sand with silt, with trace to little limerock fragments (A-3).

Stratum 2A: Brown sand and some limestone fragments, with silt to silty (A-1-b).

Stratum 3: Brown to light brown silty sand with trace to little limerock fragments (A-2-4).

Stratum 3A: Brown clayey sand (A-2-6).

Stratum 4: Light brown sandy to silty limestone.

Figure RSS-1, Cross Section Soil Survey for the Design of Roads, describes the various strata that were found during the PD&E study, presents test results for each stratum and provides preliminary design recommendations.

The details of the subsoil existing along the project alignment can be gleaned from the soil profile sheets. Figures 1 through 6 show the soil profiles of borings drilled along SR-869 / SW 10th Street, which are plotted to depth. Groundwater levels and the dates they were recorded are shown adjacent to the borings.

4.2 Groundwater

The depths of groundwater tables were measured at the locations of the borings drilled along the project corridor. The groundwater table levels measured are shown on the "Soil Profiles" sheets, Figures 1 through 6 adjacent to the boring logs.

In the borings, groundwater was encountered at the depth of 0.8 to 9.1 feet below existing ground surface, i.e., elevation +6.0 feet to +12.1 feet NAVD. The groundwater data are tabulated and presented in Appendix – B. Available Broward County Water Table Map which shows that Seasonal High Groundwater Table (SHGWT) elevations along most areas of the project corridor varied from +9.5 to +8.5 feet NAVD. In addition, we have also reviewed the groundwater information of the existing borings from old plans along SR-869, west side of Florida's Turnpike Mainline. Also, two (2) piezometer monitoring well data along SW 10th Street, east side of this project limit were also reviewed.

Based on review of the above mentioned information, we estimate the Seasonal High Groundwater Table (SHGWT) elevations along the projector corridor to be about +11.0 feet NAVD from Station 975+00 (begin of project) to Station 1150+0 (Florida Turnpike), then gradually decreased to +8.0 feet NAVD to Station 1228+00/118+00 (end of project).

Fluctuations of the groundwater should be anticipated. Based on our experience, water levels encountered in the test borings may not have sufficient time to achieve equilibrium prior to reading measurements. Therefore, groundwater levels encountered in the field during construction may be higher (or lower) than that indicated on the test boring logs. Fluctuation should be anticipated due to environmental variation and seasonal condition, such as the frequency and magnitude of rainfall patterns, as well as man-made influences, such as existing canals, swales, drainage ponds, and under drains. We recommend that the contractors determine the actual groundwater levels prior to the time of the construction to evaluate groundwater impact on their construction procedure.

4.3 Laboratory Test Results

Index property tests such as moisture content, organic content, grain size distribution and Atterberg limits are being performed on representative samples from the bridge and roadway borings. All the

available laboratory test results will be provided in Table - 1.

The corrosion parameters of pH, resistivity, sulfates and chlorides were measured for selected soil samples from the borings. The test results were compared with FDOT criteria for corrosivity to enable the materials to be classified accordingly. Corrosion series tests results are also presented in Table - 2.

4.4 Borehole Permeability Test

Nine (9) Borehole Permeability Test (BHP) were performed using the usual open-hole, constant head methodology advocated by SFWMD. The boreholes were 10 feet deep and completed as an open well with gravel pack (6-20 silca sand). The well screen slot width was 0.020 inches. Water from the drill rig tank was then pumped into the open well, and the amount of water required to maintain a constant head in the pipe was recorded. The BHP results are also presented in Table -3.

4.5 Double Ring Infiltration Test

Double Ring Infiltration Tests (DRIT) were performed twenty (20) locations along the proposed roadway corridor. The tests were performed at the ground surface in general accordance with the procedures outlined in ASTM Standard Method D-3385. The infiltration test values were determined from the test results and are graphically presented in Table - 4.

5.0 ROADWAY EMBANKMENT EVALUATION

The findings of field and laboratory analytical data for this PD&E study indicate that the roadway alignment is generally suitable for the planned construction when viewed from a geotechnical engineering perspective. The subsurface conditions of the roadway alignment are not expected to impose any significant constraints or limitations on the final design or construction of the planned project from a soil mechanics, foundation engineering or engineering geology standpoint. The position of the groundwater table must also be generally considered during final design phase and construction.

The majority of the project corridor is underlain with interlayering of Strata 1, 2, 2A, 3 and 4. Strata 3A soils were only encountered in some isolated borings.

Stratum 1 is topsoil and shall be removed during clearing and grubbing in accordance with section 110 of the FDOT Standard Specifications.

Stratum 2 consists of select material and is adequate for subgrade and embankment support, and should be utilized according to Standard Plans, Index 120-001. However, portions may have slightly fine content and are likely to retain some excess moisture and could be difficult to handle, place and compact compared to ordinary A-3 materials.

Stratum 2A soils classified as A-1-b, consist of select material and is adequate for subgrade and embankment support. However these soils have high fine content ranging between 7 to 22 percent (with average fines content at 14.0 percent) and are likely to retain some excess moisture and could be difficult to handle, place and compact compared to ordinary A-3 materials.

Stratum 3 soils classified as A-2-4 and having fine content ranging between 11 to 32 percent (with average fines content at 16.6 percent). Stratum 3 consists mainly of soils with high fines content and are likely to retain some excess moisture and could be difficult to handle, place and compact compared to ordinary A-3 materials. Hence, these soils may be used in the subgrade with extra caution, and proper supervision and quality control. A-2-4 material placed below the existing water level must contain less than 15% passing the No. 200 U.S. Standard sieve.

Stratum 3A soils classified as A-2-6, consist of plastic material.

Stratum 4 consists of limestone. Specialized tools and equipment are necessary to excavate and/or penetrate the limestone layer.

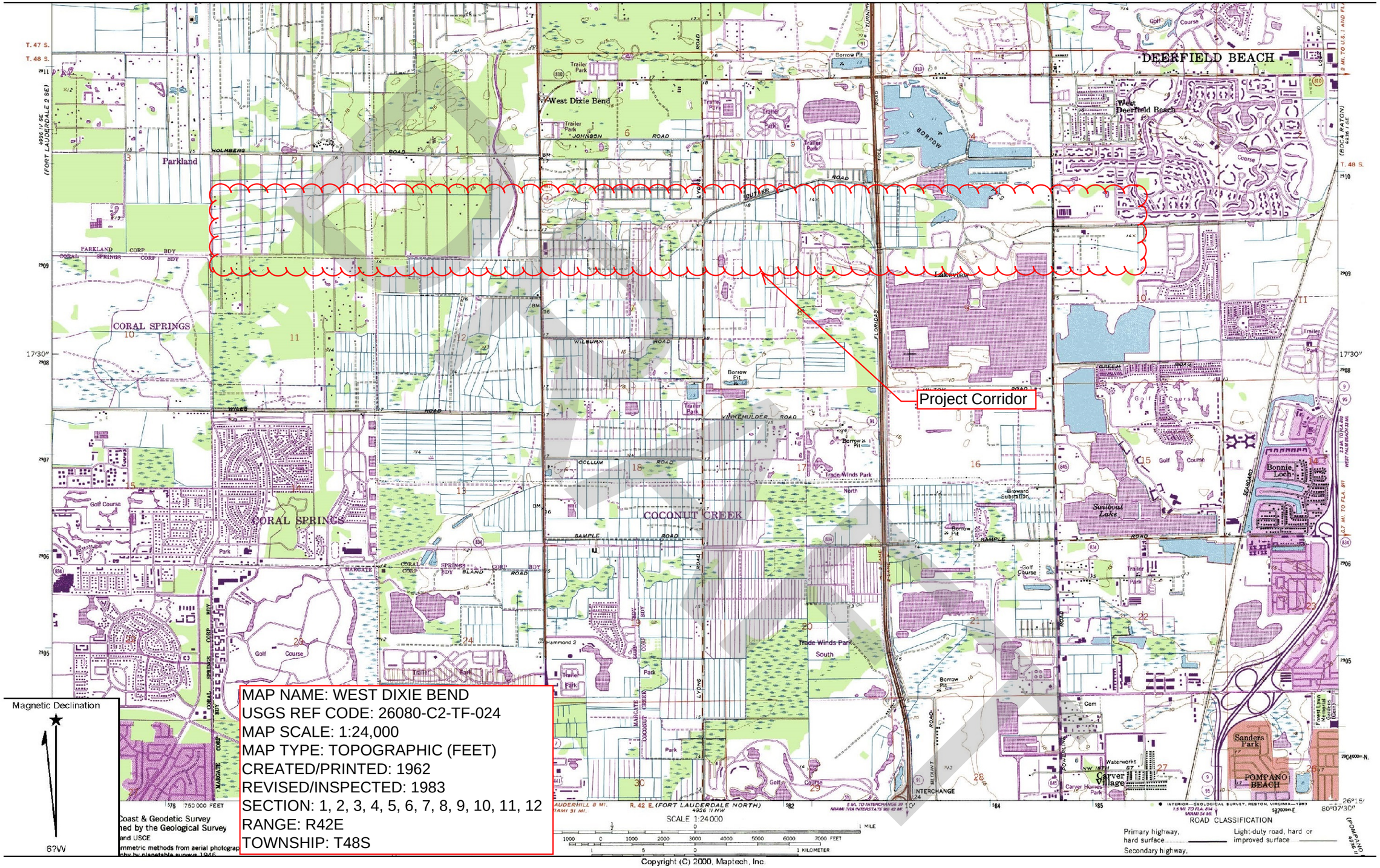
The above recommendation and evaluation of the subsoils as encountered in the widely spaced roadway borings are for the PD&E phase. We understand that during final design a final geotechnical scope of work will be performed as per FDOT Standards and at that time final evaluation will be performed and final recommendation will be provided.

6.0 LIMITATIONS OF STUDY

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein are for the PD&E Study and have been presented after being prepared following generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics and engineering geology. This company is not responsible for the conclusion, opinion, or recommendations made by others based on this data. No other warranties are expressed or implied.

The scope of the investigation was intended to evaluate soil conditions within the influence of foundations and does not include an evaluation of potential deep soil problems such as sinkholes. The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated. If any subsoil variations become evident during the course of this project, a re-evaluation of the recommendations contained in this report will be necessary after we have had an opportunity to observe the characteristics of the conditions encountered. This report is prepared for the PD&E Study of the project corridor, and hence final alignment of the proposed roadway, design details and additional design consideration are not available at this phase of the project. We understand that during the final design phase, based on final proposed alignment of the project corridor, additional roadway auger borings should be drilled at close intervals (spacing) and laboratory tests performed in order to evaluate the suitability of the existing subsoils and delineate the horizontal and vertical extents of the unsuitable soils (if any). Also during the final design phase, bridge and structure borings will be required based on final alignment of the bridge widenings/replacements and final analysis and design of bridge foundations has to be performed. The applicability of the report should also be reviewed in the event significant changes occur in the design, nature, or location of the proposed roadway and structures.

The scope of our services does not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site studied. Any statements in the report regarding odors, staining of soils, or other unusual conditions observed are strictly for the information of our client.



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
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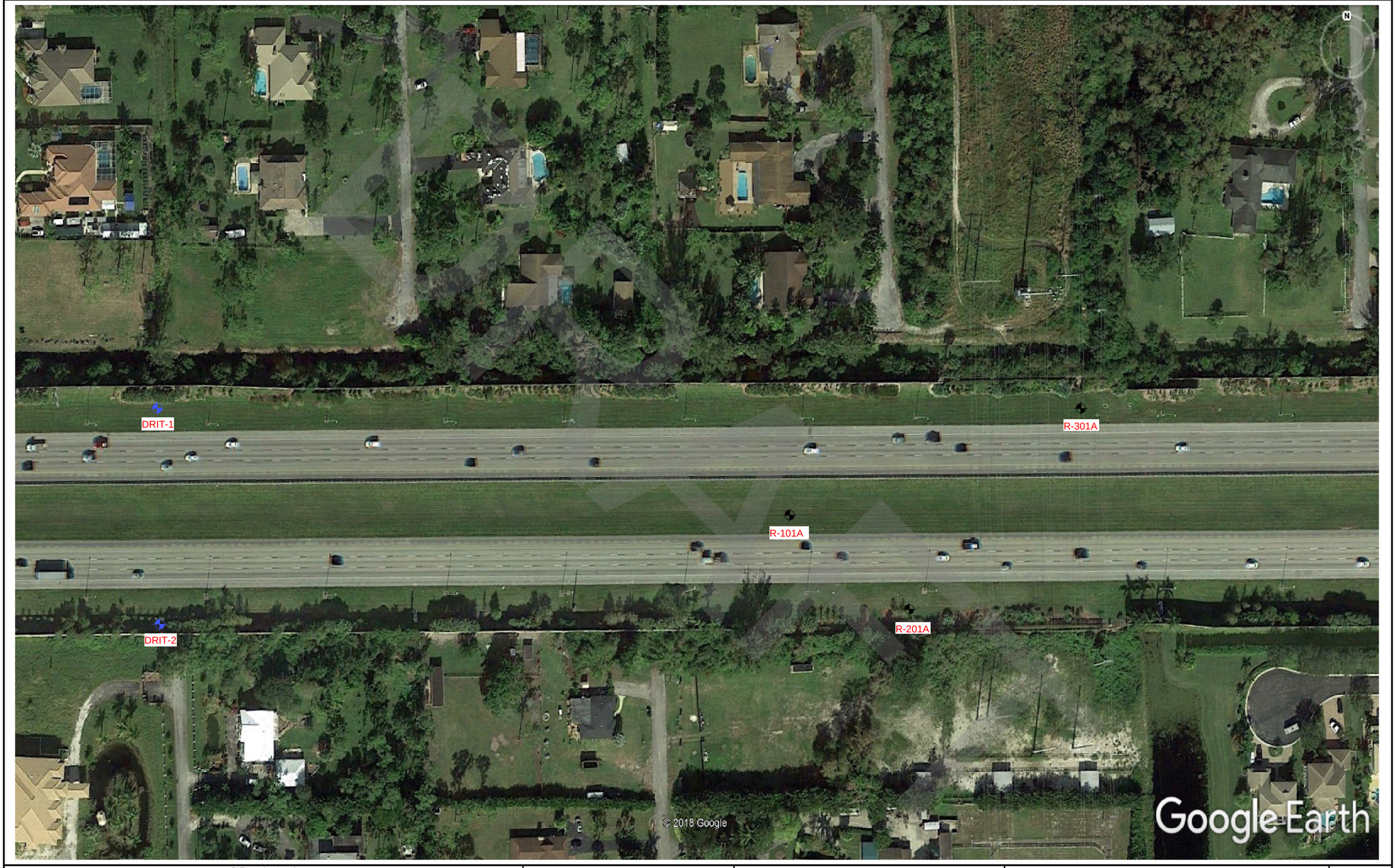
CERTIFICATE OF AUTHORIZATION NO. 9076

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 869	BROWARD	437153-1-22-01

SITE VICINITY MAP
PLATE-1A

SHEET NO.



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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
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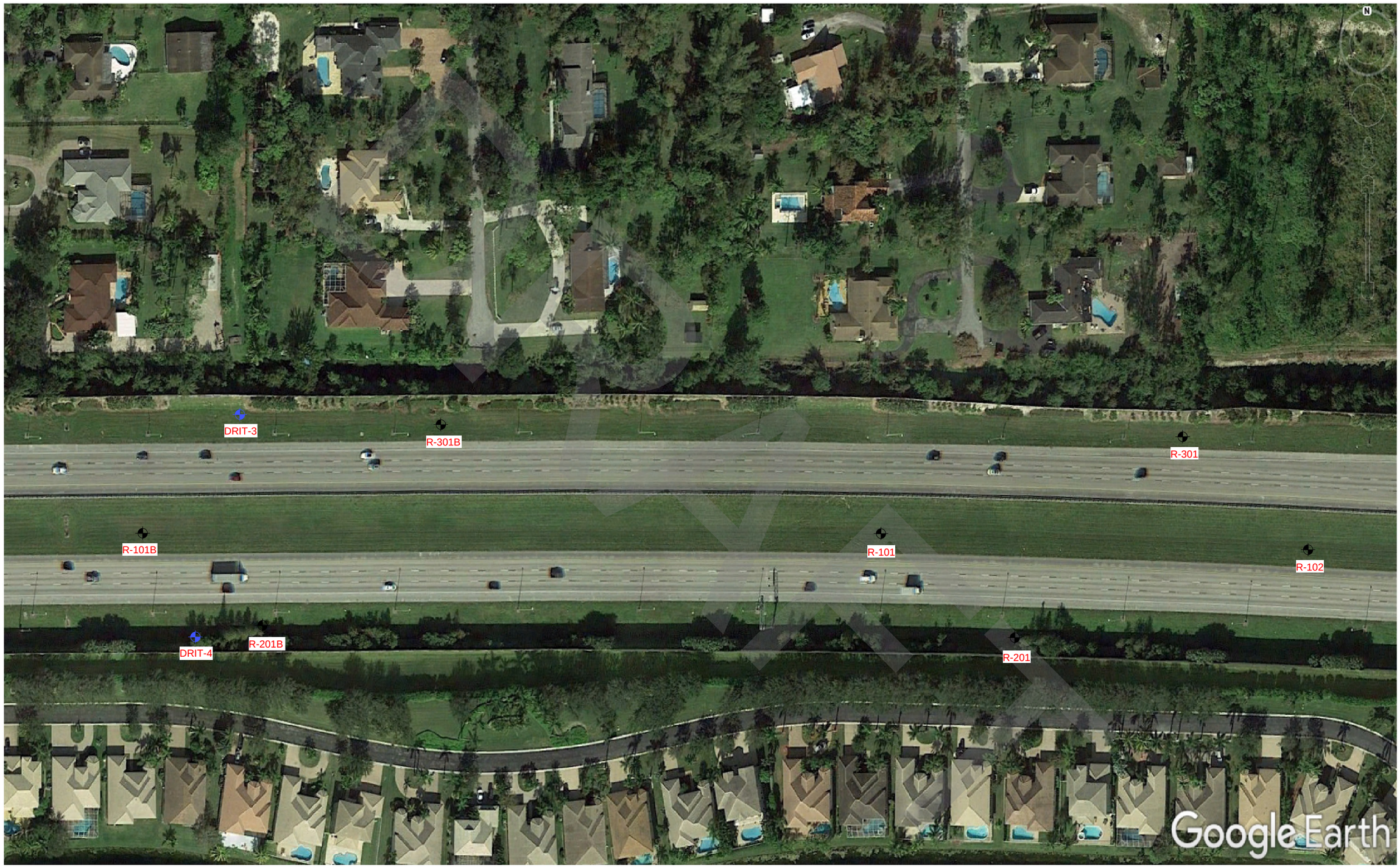
APPROXIMATE BORING LOCATION PLAN
PLATE-1

SHEET NO.



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APPROXIMATE BORING LOCATION PLAN
PLATE-2

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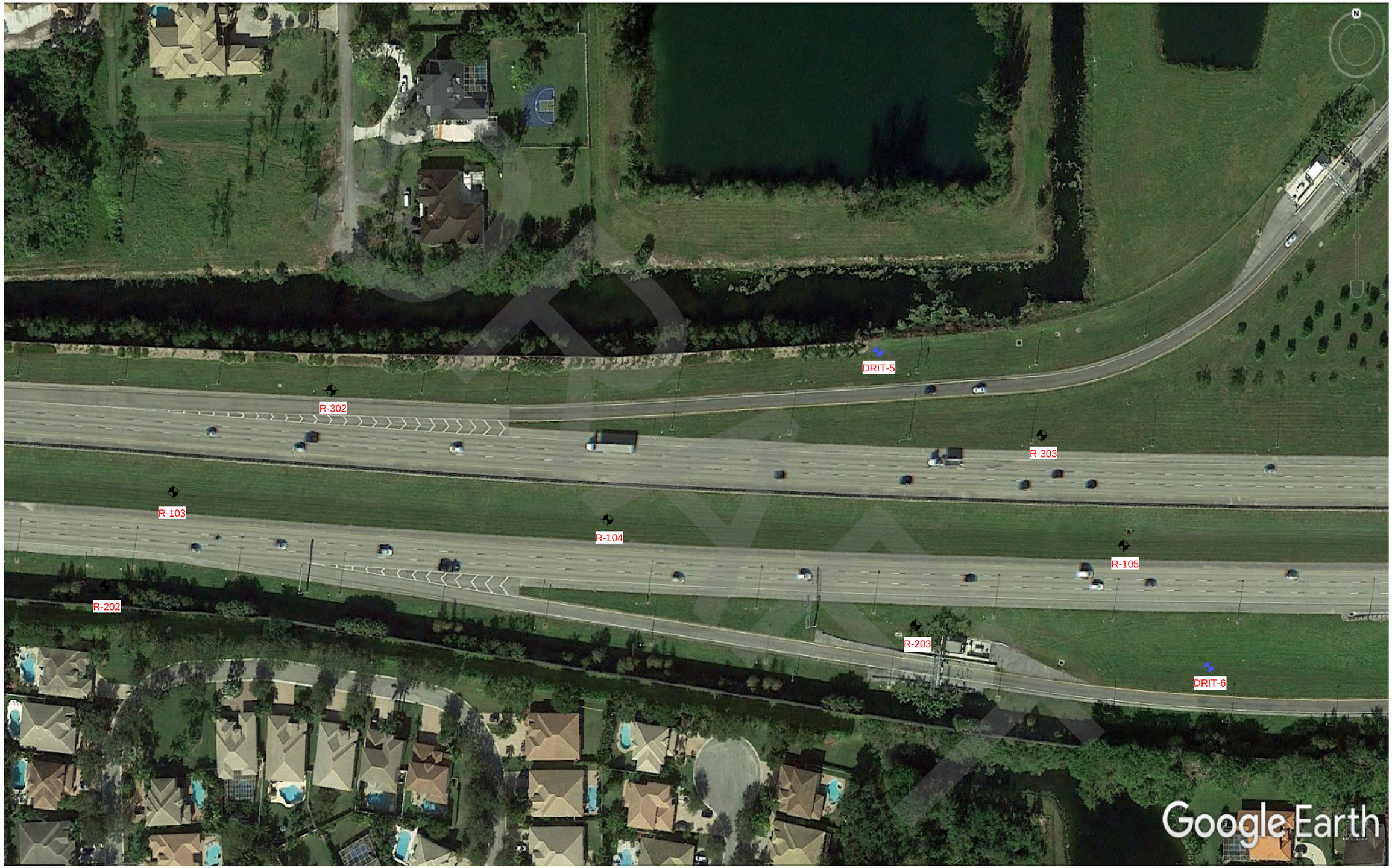

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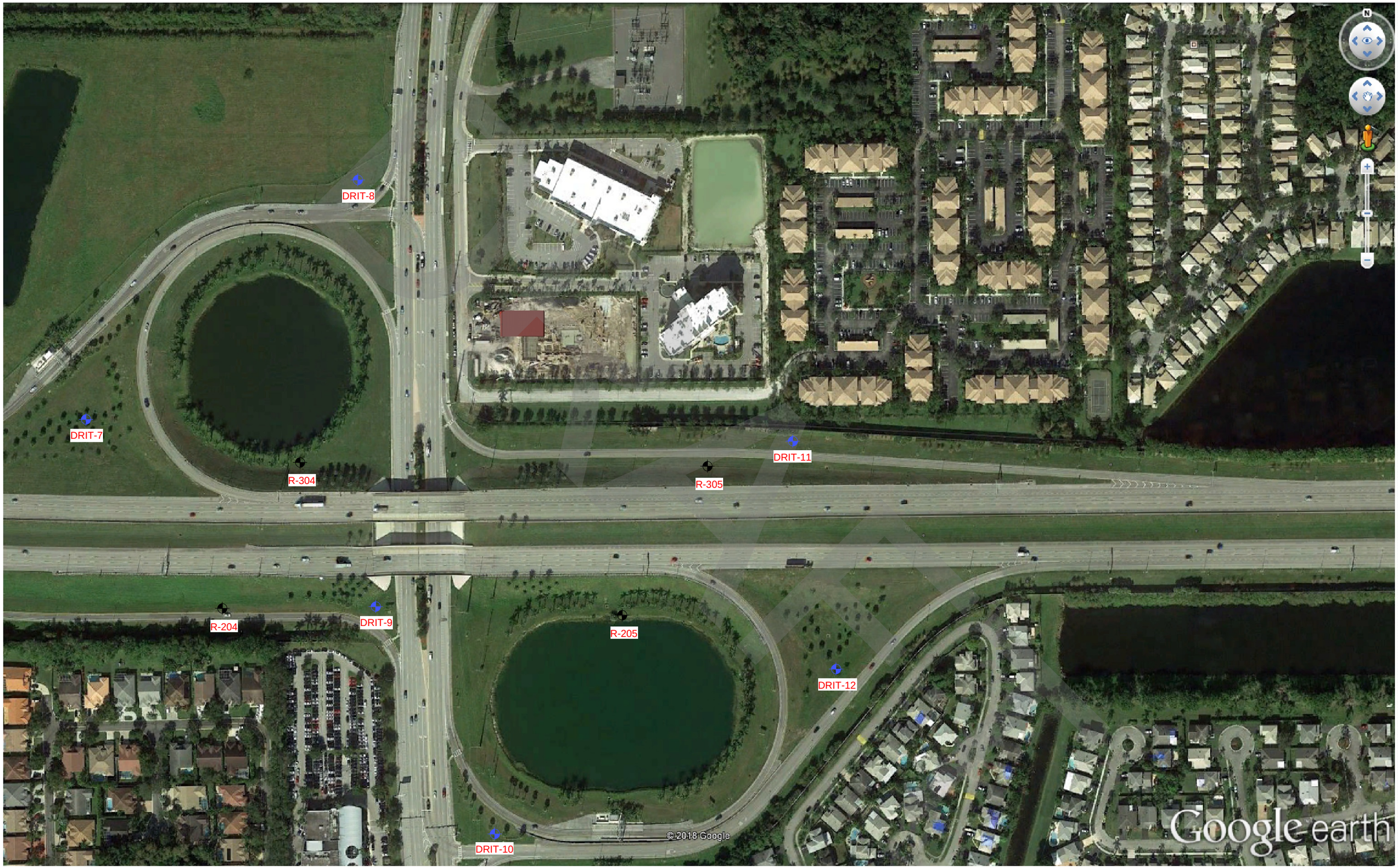
APPROXIMATE BORING LOCATION PLAN
PLATE-3

SHEET NO.



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APPROXIMATE BORING LOCATION PLAN
PLATE-4

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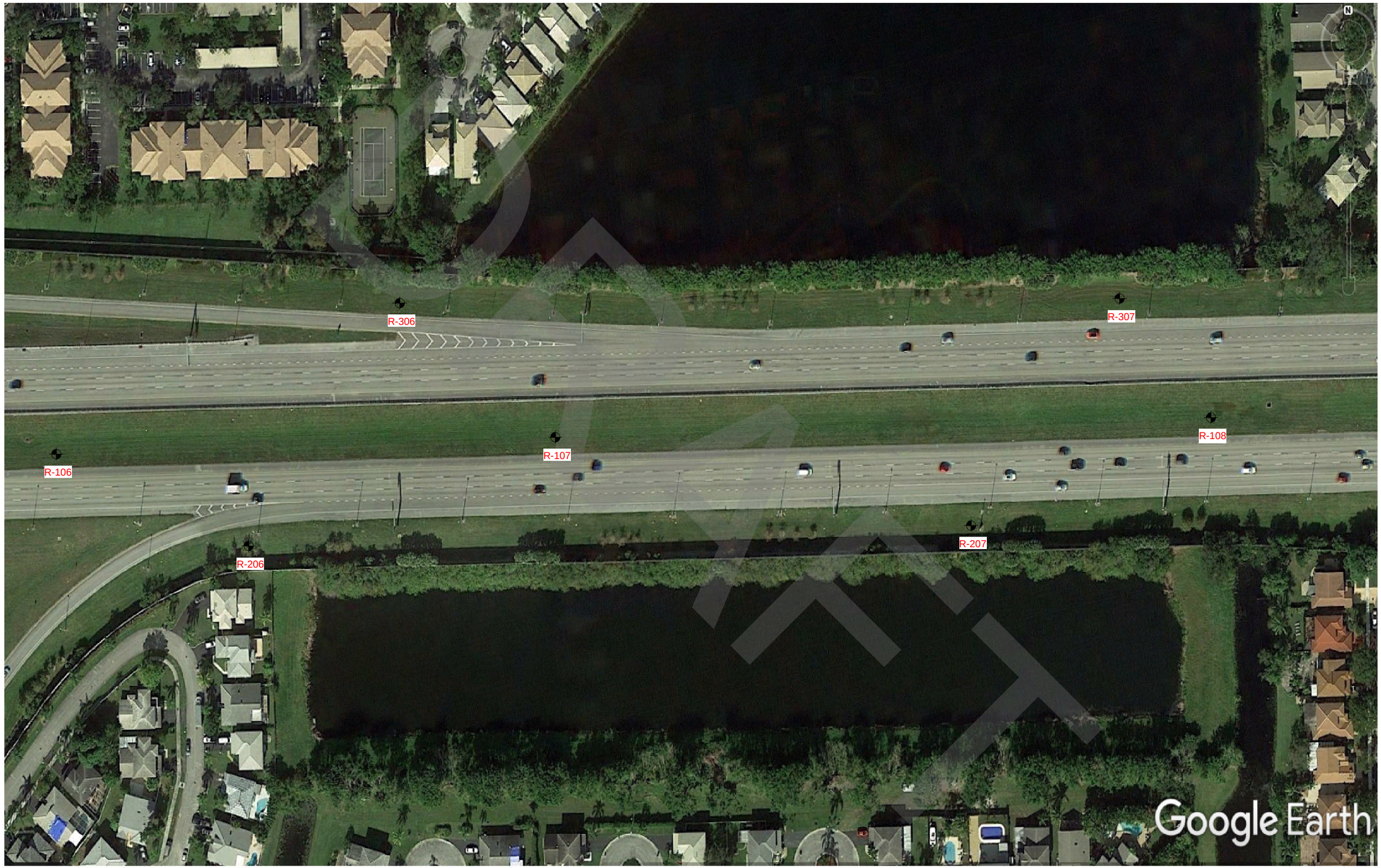

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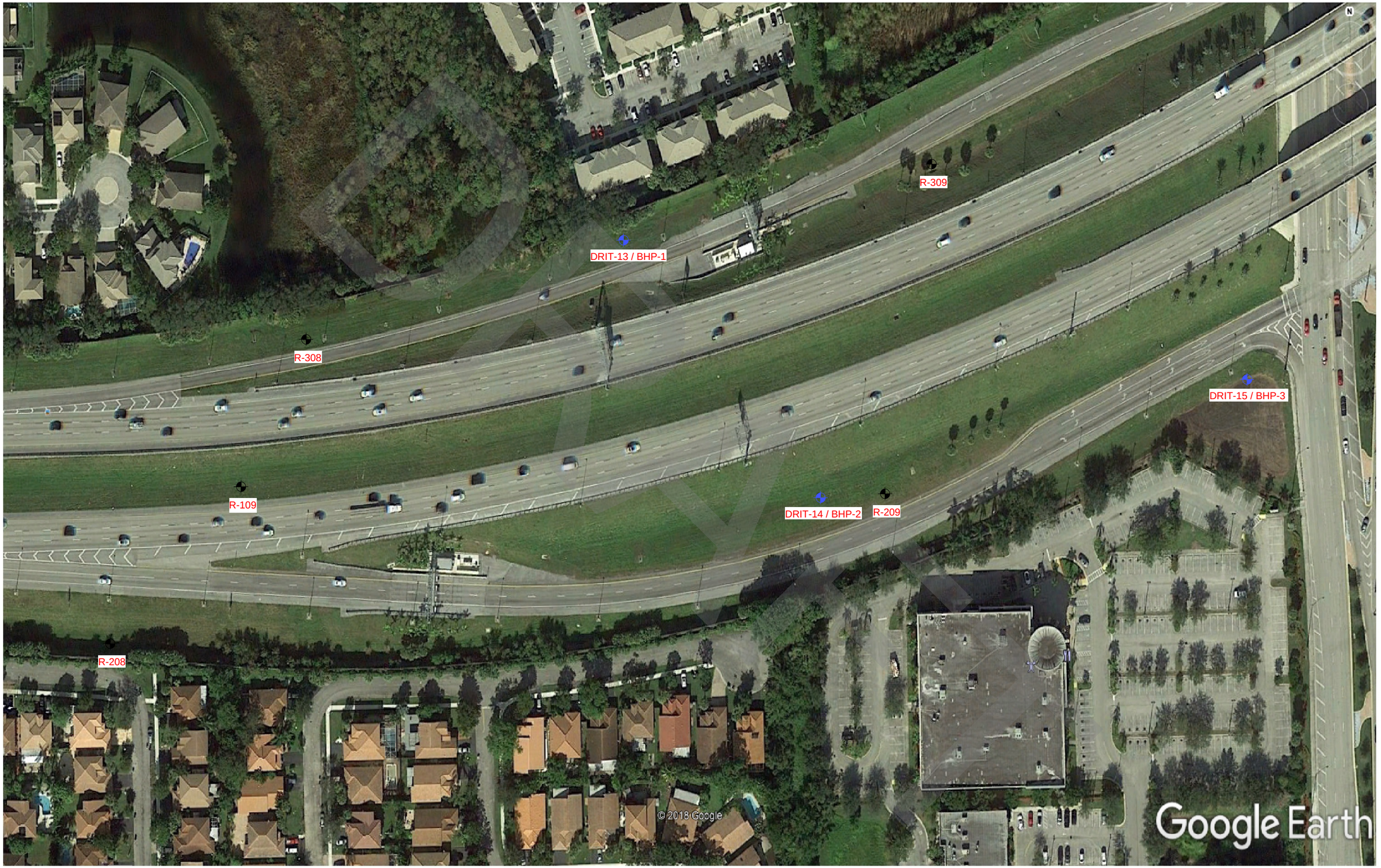
APPROXIMATE BORING LOCATION PLAN
PLATE-5

SHEET NO.



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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

LEGEND:
R- Roadway Boring

DRIT- Double Ring Infiltration Test
BHP- Borehole Permeability Test

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APPROXIMATE BORING LOCATION PLAN
PLATE-6

SHEET NO.

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APPROXIMATE BORING LOCATION PLAN
PLATE-7

SHEET NO.

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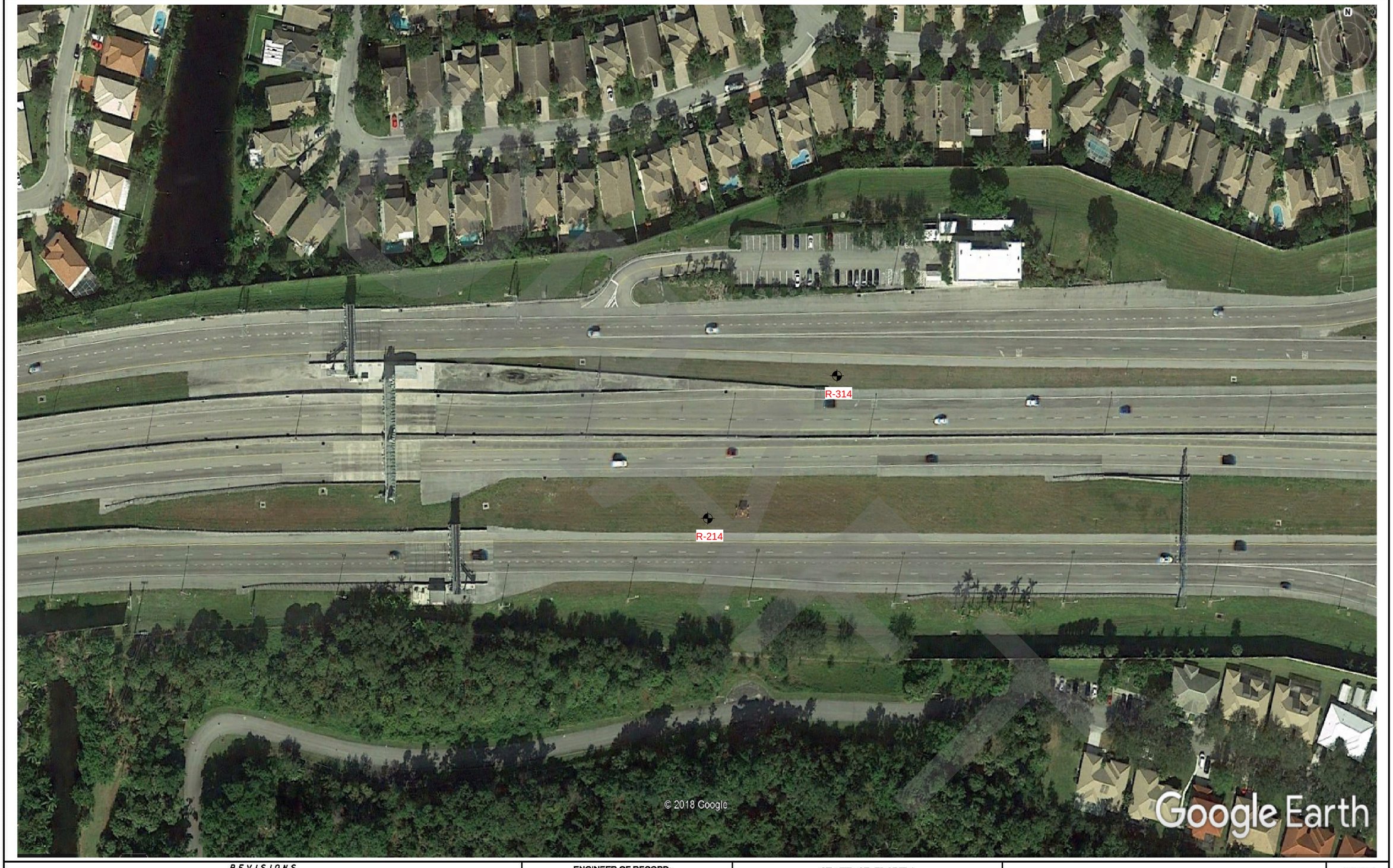
APPROXIMATE BORING LOCATION PLAN
PLATE-8

SHEET NO.



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LEGEND:
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BHP- Borehole Permeability Test

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APPROXIMATE BORING LOCATION PLAN
PLATE-9

SHEET NO.

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APPROXIMATE BORING LOCATION PLAN
PLATE-10

SHEET NO.

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APPROXIMATE BORING LOCATION PLAN
PLATE-11

SHEET NO.

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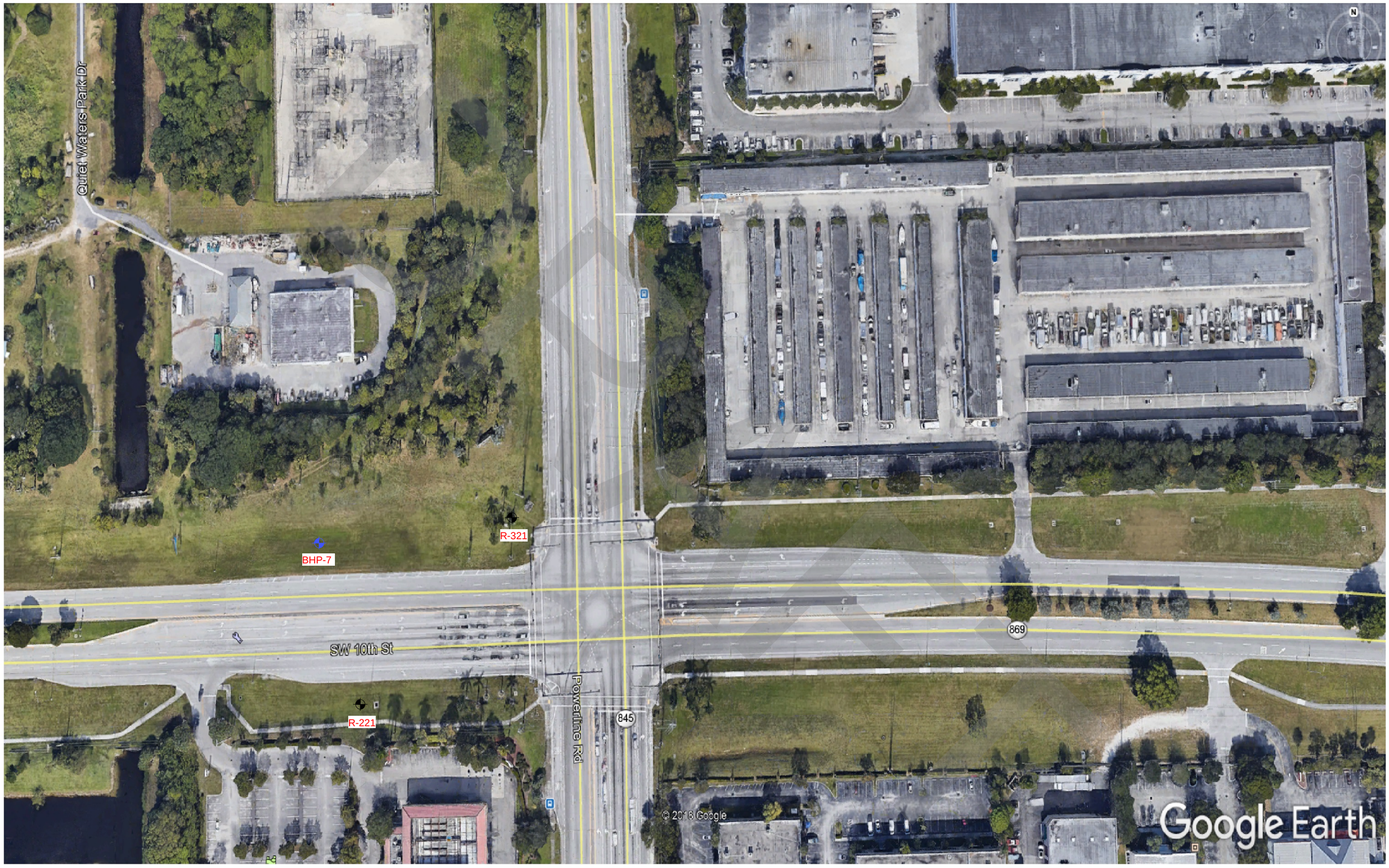
APPROXIMATE BORING LOCATION PLAN
PLATE-12

SHEET NO.



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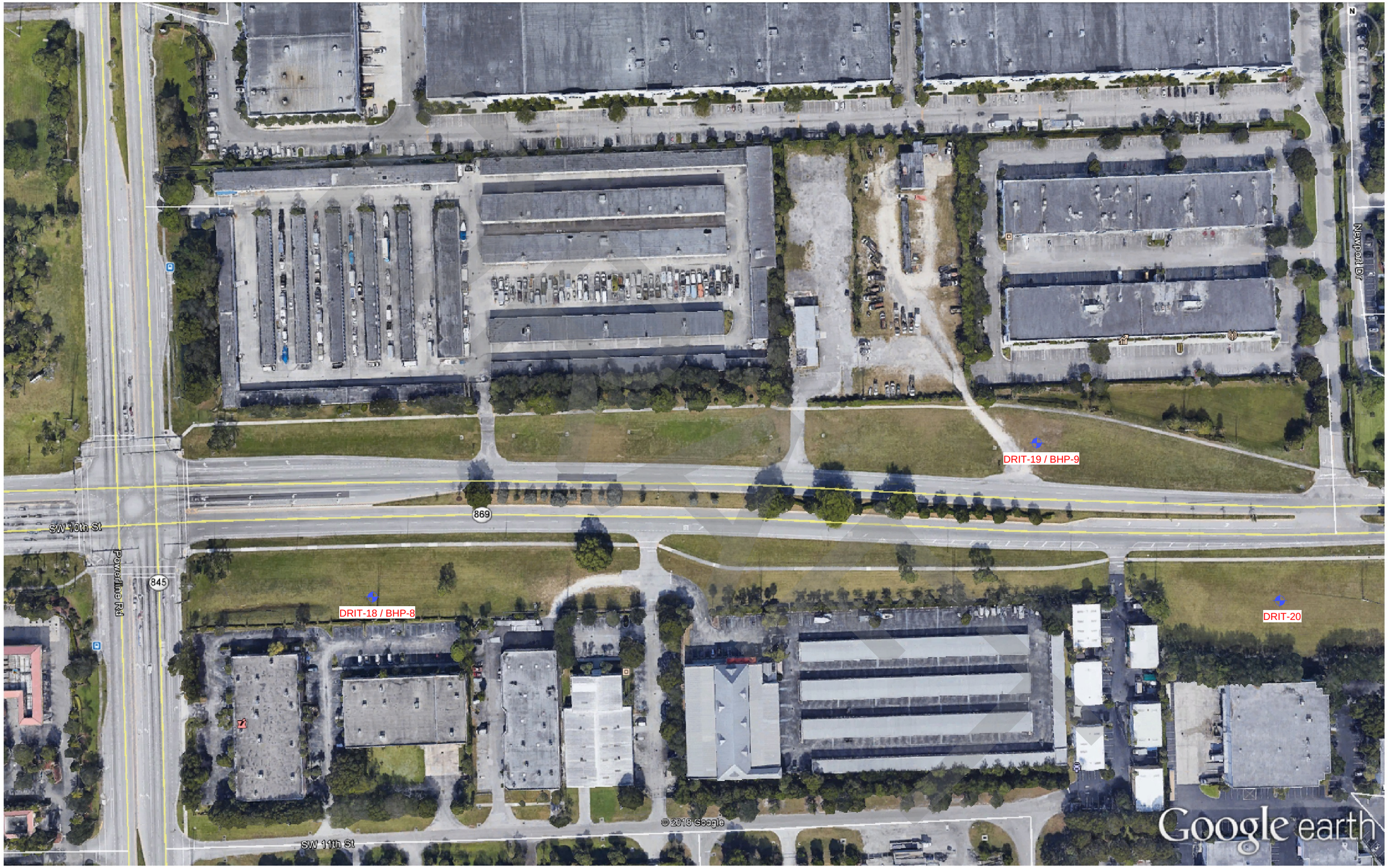
APPROXIMATE BORING LOCATION PLAN
PLATE-13

SHEET NO.



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869	BROWARD	437153-1-22-01

APPROXIMATE BORING LOCATION PLAN
PLATE-14

SHEET NO.

DATE OF SURVEY: 8/14/17 - 2/22/18
SURVEY MADE BY: GCME, INC.
SUBMITTED BY: PARTHA GHOSH, P.E.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
MATERIALS AND RESEARCH

DISTRICT: 4
ROAD NO.: 869
COUNTY: BROWARD

FINANCIAL PROJECT ID : 437153-1-22-01
PROJECT NAME: PD&E WIDEN SR-869 FROM US-441 TO POWERLINE ROAD

CROSS SECTION SOIL SURVEY FOR THE DESIGN OF ROADS

SURVEY BEGINS STA. : 975+00 SURVEY ENDS STA. : 118+00

REFERENCE: SR-869 / SW 10TH STREET

	ORGANIC CONTENT		MOISTURE CONTENT		SIEVE ANALYSIS RESULTS PERCENT PASS (%)						ATTERBERG LIMITS (%)					CORROSION TEST RESULTS				
STRATUM NO.	NO. OF TESTS	% ORGANIC	NO. OF TESTS	MOISTURE CONTENT	NO. OF TESTS	10 MESH	40 MESH	60 MESH	100 MESH	200 MESH	NO. OF TESTS	LIQUID LIMIT	PLASTIC INDEX	AASHTO GROUP	DESCRIPTION	NO. OF TESTS	RESISTIVITY ohm-cm	CHLORIDE ppm	SULFATES ppm	pH
1	-	-	-	-	-	-	-	-	-	-	-	-	-	A-8	DARK BROWN TO BROWN SAND WITH TRACE ROOTS AND TRACE ORGANIC (TOPSOIL)	-	-	-	-	-
2	1	1.6	66	6-85	66	64-100	51-88	22-55	6-22	0-10	-	-	-	A-3	BROWN TO LIGHT BROWN SAND WITH SILT, WITH TRACE TO LITTLE LIMEROCK FRAGMENTS	6	6950-21400	3-23	3-52	8.1-8.7
2A	-	-	14	11-25	14	48-86	35-50	17-36	10-26	7-22	-	-	-	A-1-b	BROWN SAND AND SOME LIMESTONE FRAGMENTS, WITH SILT TO SILTY	-	-	-	-	-
3	-	-	43	1-39	43	64-100	51-95	25-82	14-53	11-32	-	-	-	A-2-4	BROWN TO LIGHT BROWN SILTY SAND WITH TRACE TO LITTLE LIMEROCK FRAGMENTS	2	1570-4460	3-5	104-549	7.3-8.3
3A	-	-	2	19-22	2	100	81	37-40	21-22	14-18	3	22-30	11-16	A-2-6	BROWN CLAYEY SAND	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LIGHT BROWN SANDY TO SILTY LIMESTONE	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

EMBANKMENT AND SUBGRADE MATERIAL

STRATA BOUNDARIES ARE APPROXIMATE. MAKE FINAL CHECK AFTER GRADING.

▽ - WATER TABLE ENCOUNTERED

GNE - GROUNDWATER NOT ENCOUNTERED

NOTES:
(1) THE MATERIAL FROM STRATUM 1 IS TOPSOIL (A-8) AND CONSIDERED TO BE UNSUITABLE (MUCK). IT SHALL BE REMOVED DURING CLEARING AND GRUBBING IN ACCORDANCE WITH SECTION 110 OF THE FDOT STANDARD SPECIFICATIONS.

(2) STRATUM 2 CONSISTS OF SELECT MATERIALS AND ARE ADEQUATE FOR SUBGRADE AND EMBANKMENT SUPPORT, AND SHOULD BE UTILIZED ACCORDING TO STANDARD PLANS, INDEX 120-001.

(3) STRATUM 2A AND 3 CONSIST OF SELECT MATERIALS AND ARE GENERALLY ADEQUATE FOR SUBGRADE AND EMBANKMENT SUPPORT, AND SHOULD BE UTILIZED ACCORDING TO STANDARD PLANS, INDEX 120-001. HOWEVER, SOME PORTIONS OF THESE SOILS HAVE HIGH FINES CONTENT, AND HENCE WILL RETAIN EXCESS MOISTURE, AND WILL BE DIFFICULT TO HANDLE, PLACE AND COMPACT. THESE MATERIALS MAY BE USED IN THE ROADWAY SUBGRADE WITH EXTRA CAUTION AND PROPER SUPERVISION AND QUALITY CONTROL.

(4) STRATUM 3A CONSISTS OF PLASTIC MATERIALS.

(5) STRATUM 4 CONSISTS OF LIMESTONE. SPECIALIZED TOOLS AND EQUIPMENT ARE NECESSARY TO EXCAVATE AND/OR PENETRATE THE LIMESTONE LAYER.

GCME PROJECT NO. 2000-01-16001

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ENGINEER OF RECORD:
PARTHA GHOSH, P.E. LICENSE NO. 51377
GCME, INC.
1730 W. 10TH STREET
RIVIERA BEACH, FLORIDA 33404
CERTIFICATE OF AUTHORIZATION NO. 9076

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

ROADWAY SOIL SURVEY

SHEET NO.

FIGURE: RSS-1

NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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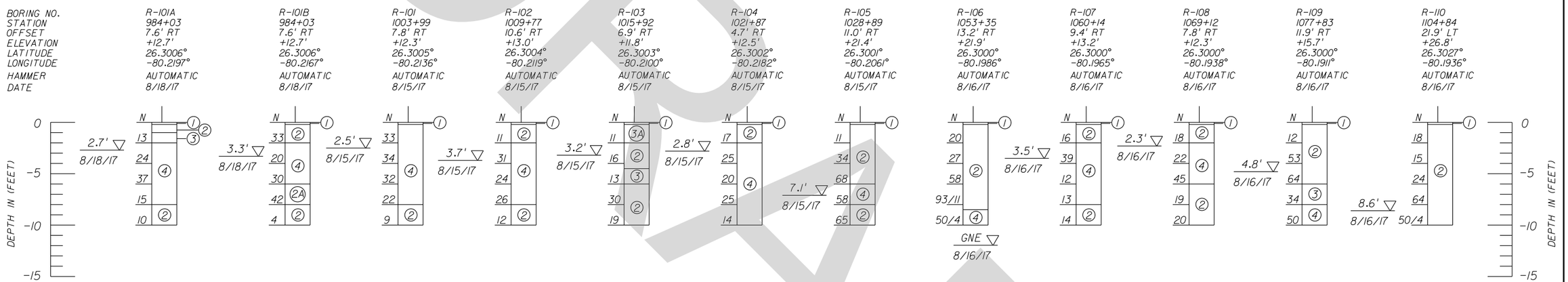

LEGEND

1. DARK BROWN TO BROWN SAND WITH TRACE ROOTS AND TRACE ORGANIC. (TOPSOIL / A-8)
2. BROWN TO LIGHT BROWN SAND WITH SILT, WITH TRACE TO LITTLE LIMEROCK FRAGMENTS. (A-3)

2A. BROWN SAND AND SOME LIMESTONE FRAGMENTS, WITH SILT TO SILTY (A-1-b)

3. BROWN TO LIGHT BROWN SILTY SAND WITH TRACE TO LITTLE LIMEROCK FRAGMENTS. (A-2-4)

3A. BROWN CLAYEY SAND. (A-2-6)

4. LIGHT BROWN SANDY TO SILTY LIMESTONE

NOTES

- ▽ GROUNDWATER LEVEL RECORDED ON THE DATE OF DRILLING.
- GNE: WATER TABLE NOT ENCOUNTERED WITHIN THE DEPTH OF EXPLORATION.
- DRILLED BY: FAUSTINO
- COORDINATES INFORMATION ARE MEASURED BY HANDHELD GPS.
- STATION / OFFSET / ELEVATION INFORMATION ARE PROVIDED BY SURVEYOR.

N - STANDARD PENETRATION RESISTANCE IN BLOWS PER 12 INCHES.

(A-3) - AASHTO SOIL SYMBOL

SCALE: 1"=10'V

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

SOIL PROFILES

SHEET NO.

GCME PROJECT NO. 2000-01-16001

FIGURE: 1 NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

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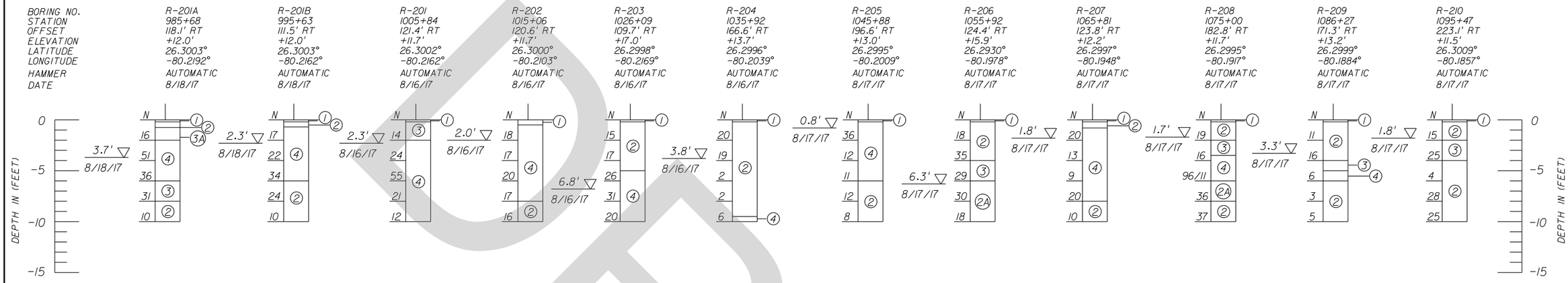

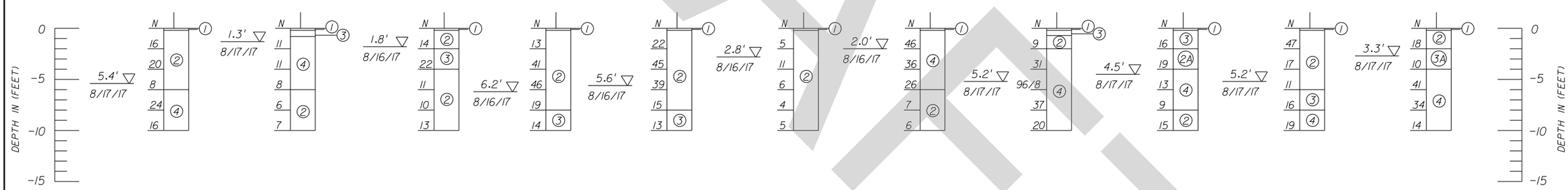

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4. LIGHT BROWN SANDY TO SILTY LIMESTONE

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

SOIL PROFILES

SHEET NO.

GCME PROJECT NO. 2000-01-1600I

FIGURE: 2 NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

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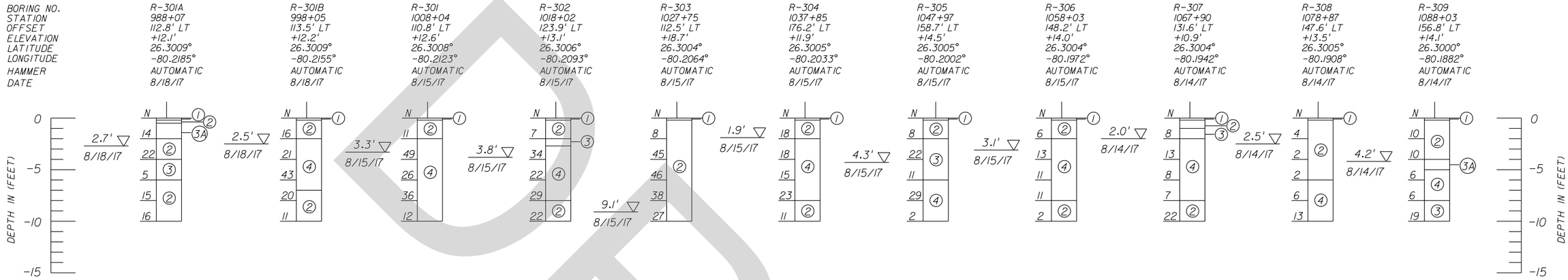

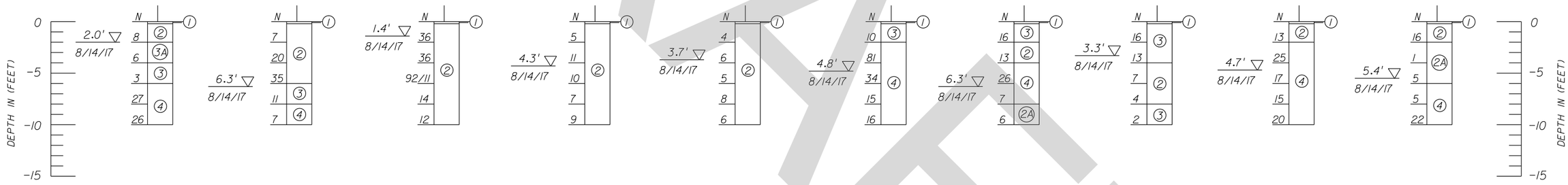

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N - STANDARD PENETRATION RESISTANCE IN BLOWS PER 12 INCHES.

(A-3) - AASHTO SOIL SYMBOL

- BORING NO. NOT CONTINUOUS, BORINGS SKIPPED DUE TO ACCESS PROBLEM.

SCALE: 1"=10'V

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PARTHA GHOSH, P.E. LICENSE NO. 51377
GCME, INC.
1730 W. 10TH STREET
RIVIERA BEACH, FLORIDA 33404
CERTIFICATE OF AUTHORIZATION NO. 9076

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

SOIL PROFILES

SHEET NO.

GCME PROJECT NO. 2000-01-1600I

FIGURE: 3 NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

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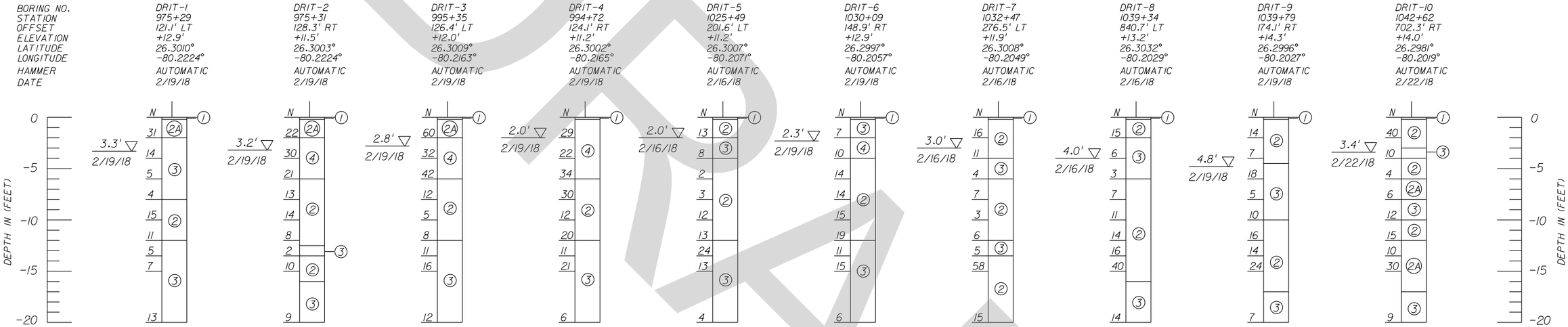

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SCALE: 1"=10'V

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
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GCME, INC.
1730 W. 10TH STREET
RIVIERA BEACH, FLORIDA 33404
CERTIFICATE OF AUTHORIZATION NO. 9076

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

SOIL PROFILES

SHEET NO.

GCME PROJECT NO. 2000-01-16001

FIGURE: 4 NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

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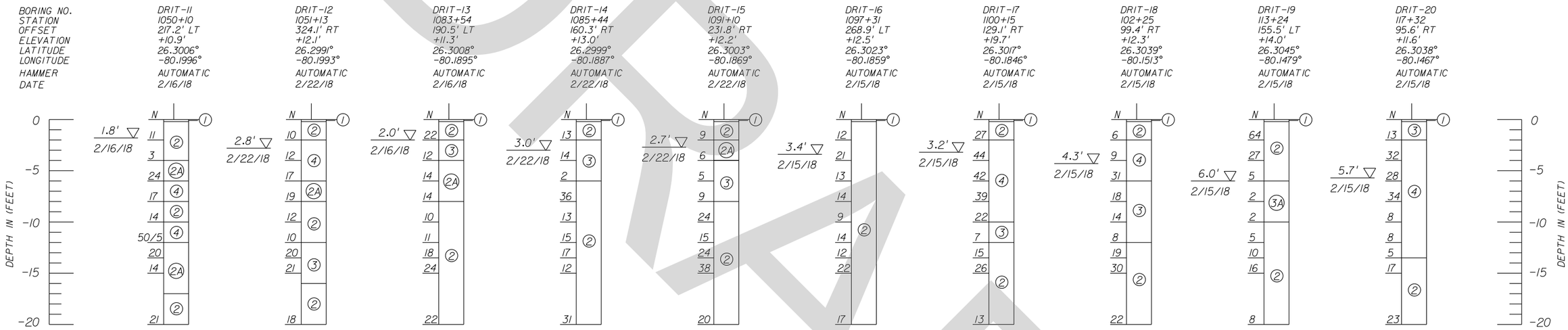

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N - STANDARD PENETRATION RESISTANCE IN BLOWS PER 12 INCHES.

(A-3) - AASHTO SOIL SYMBOL

SCALE: 1"=10'V

GCME PROJECT NO. 2000-01-1600I

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PARTHA GHOSH, P.E. LICENSE NO. 51377
GCME, INC.
1730 W. 10TH STREET
RIVIERA BEACH, FLORIDA 33404
CERTIFICATE OF AUTHORIZATION NO. 9076

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

SOIL PROFILES

SHEET NO.

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FIGURE: 5 NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

LEGEND

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SCALE: 1"=10'V

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
869	BROWARD	437153-1-22-01

SOIL PROFILES

SHEET NO.

GCME PROJECT NO. 2000-01-1600I

NOTICE: THE OFFICAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

FIGURE: 6

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TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-101A	8	-	10	2	A-3	18.6					100.0	96.1	88.7	82.7	80.0	74.8	50.5	16.9	7.1
R-101B	6	-	8	2A	A-1-b	12.1					91.1	79.1	64.9	55.4	49.5	43.8	30.5	16.3	10.9
R-101	8	-	10	2	A-3	15.9					100.0	92.7	82.4	75.0	71.3	64.4	41.0	16.2	7.6
R-102	8	-	10	2	A-3	14.0					94.1	79.7	68.7	63.9	61.5	55.9	36.1	14.6	7.8
R-103	0	-	2	3A	A-2-6			29.6	13.5	16.1									
R-103	4	-	6	3	A-2-4	26.4					100.0	94.1	91.3	88.2	83.0	73.3	47.3	24.4	17.3
R-105	2	-	4	2	A-3	10.4					100.0	97.6	94.9	91.7	88.7	77.6	44.9	21.5	9.4
R-105	4	-	6	2	A-3	5.9					100.0	88.4	85.5	82.3	80.0	69.1	36.2	14.3	8.6
R-106	6	-	8	2	A-3	8.2					100.0	100.0	98.3	95.4	93.0	81.2	45.0	13.6	5.6
R-107	8	-	10	2	A-3	16.1					92.7	84.1	74.8	68.9	64.0	52.2	27.2	12.7	6.7
R-108	6	-	8	2	A-3	19.5					100.0	96.5	93.4	90.7	87.5	73.9	38.5	13.2	6.6
R-109	4	-	6	2	A-3	13.5					100.0	100.0	99.5	99.2	98.1	81.3	36.0	10.4	4.0
R-109	6	-	8	3	A-2-4	25.1					100.0	99.3	97.2	95.0	92.1	79.5	45.9	24.4	15.6
R-110	2	-	4	2	A-3	14.1					89.4	83.0	74.5	68.2	63.0	53.8	38.0	19.5	9.3
R-110	6	-	8	2	A-3	9.6					100.0	99.4	96.8	93.9	91.3	81.0	53.3	17.3	6.9
R-201A	6	-	8	3	A-2-4	14.5					93.0	83.1	71.0	63.7	59.5	54.4	39.4	19.3	13.6
R-201A	8	-	10	2	A-3	19.0					100.0	93.4	89.2	84.7	82.2	74.6	53.7	19.6	8.9
R-201B	6	-	8	2	A-3	13.5					96.9	87.9	76.8	68.0	62.4	55.1	54.6	15.7	9.5
R-201	0	-	2	3	A-2-4	14.7					92.6	82.6	79.2	75.8	71.5	63.5	41.5	26.0	21.6
R-202	8	-	10	2	A-3	13.3					100.0	85.3	77.8	72.1	69.1	62.3	38.8	15.9	9.0
R-204	4	-	6	2	A-3	28.8					96.2	96.2	95.6	95.2	94.4	80.9	37.4	14.5	9.4
R-204	8	-	10	2	A-3	9.3					82.6	76.8	74.0	72.3	70.8	61.9	33.3	15.0	9.2
R-205	6	-	8	2	A-3	13.5					93.4	81.0	74.7	68.8	65.1	55.9	29.1	11.9	9.5
R-205	8	-	10	2	A-3	14.7					98.0	92.0	84.4	79.1	75.7	65.3	34.8	14.4	9.4
R-206	4	-	6	3	A-2-4	38.6					100.0	100.0	97.8	95.7	89.6	72.6	41.2	19.8	12.5
R-206	6	-	8	2A	A-1-b	24.6					89.0	74.8	69.2	64.6	59.0	50.1	34.5	23.5	17.1

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-206	8	-	10	2A	A-1-b	20.8					85.4	73.0	65.0	60.4	57.1	48.1	28.6	16.1	9.8
R-207	8	-	10	2	A-3	14.5					100.0	97.8	93.7	91.9	90.1	73.6	40.6	13.3	7.3
R-208	6	-	8	2A	A-1-b	13.7					86.7	75.3	69.3	85.5	59.5	49.8	31.5	19.2	13.1
R-208	8	-	10	2	A-3	17.7					100.0	92.4	84.9	77.5	70.6	54.9	27.1	13.2	9.7
R-209	2	-	4	2	A-3	15.9	1.6												
R-209	8	-	10	2	A-3	18.5					100.0	92.4	80.7	73.6	68.0	53.2	25.0	11.6	8.0
R-210	2	-	4	3	A-2-4	20.0					95.8	91.3	87.7	86.0	84.2	70.2	38.0	21.9	15.8
R-210	6	-	8	2	A-3	10.9					91.8	85.4	81.9	76.7	72.8	54.3	23.7	10.6	7.8
R-211	4	-	6	2	A-3	10.8					96.0	87.5	81.4	77.3	73.8	57.4	22.2	7.8	4.5
R-212	8	-	10	2	A-3	21.2					100.0	98.1	91.5	85.4	78.7	59.3	27.6	14.5	10.1
R-213	2	-	4	3	A-2-4	15.7					100.0	100.0	100.0	100.0	99.1	84.0	43.3	22.8	14.1
R-213	4	-	6	2	A-3	17.5					100.0	100.0	99.9	99.9	99.4	82.1	34.8	15.8	9.9
R-213	8	-	10	2	A-3	17.7					100.0	100.0	97.3	94.6	90.3	69.5	26.3	11.3	7.4
R-214	6	-	8	2	A-3	15.8					100.0	100.0	100.0	99.9	99.0	80.7	43.7	18.7	10.4
R-214	8	-	10	3	A-2-4	17.6					100.0	99.1	98.3	97.7	96.3	80.4	45.4	24.7	13.3
R-215	2	-	4	2	A-3						100.0	100.0	100.0	100.0	98.6	75.9	25.2	5.8	2.0
R-215	8	-	10	3	A-2-4	17.5					100.0	99.5	97.5	97.1	95.7	80.4	42.7	20.8	10.6
R-216	4	-	6	2	A-3	18.7					100.0	100.0	100.0	100.0	99.0	81.0	34.2	9.0	1.4
R-216	8	-	10	2	A-3	9.9					100.0	100.0	100.0	100.0	98.7	77.1	31.4	10.6	5.2
R-217	6	-	8	2	A-3	12.0					100.0	87.4	78.5	71.8	67.9	53.7	24.4	8.8	5.6
R-217	8	-	10	2	A-3	13.5					100.0	93.1	89.7	87.4	84.6	65.3	29.4	11.0	5.4
R-219	0	-	2	3	A-2-4	14.9					100.0	96.1	92.8	91.2	89.7	77.6	51.2	37.2	30.9
R-219	2	-	4	2A	A-1-b	11.1					88.6	72.5	56.8	47.5	42.2	36.7	28.3	22.5	19.4
R-220	2	-	4	2	A-3	19.4					100.0	97.7	93.7	91.2	87.8	73.2	38.6	19.4	10.2
R-220	4	-	6	2	A-3	54.1					100.0	99.7	99.0	95.0	89.0	70.1	34.1	17.7	10.0
R-220	6	-	8	3	A-2-4	23.3					100.0	90.9	85.0	80.2	73.0	60.4	40.4	29.4	24.0
R-221	2	-	4	3A	A-2-6			22.2	11.1	11.1									

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-301A	2	-	4	2	A-3	36.4					100.0	100.0	99.5	98.7	97.7	88.1	43.4	9.8	3.5
R-301A	6	-	8	2	A-3	26.2					96.7	89.4	81.9	77.4	73.6	66.5	41.2	14.0	6.6
R-302	8	-	10	2	A-3	17.2					100.0	90.0	75.2	70.1	67.5	60.7	35.0	13.3	7.7
R-303	2	-	4	2	A-3	8.5					95.3	81.9	76.7	73.2	71.1	61.7	30.6	11.3	6.5
R-303	8	-	10	2	A-3	11.1					100.0	100.0	100.0	100.0	99.3	82.8	38.9	9.5	3.1
R-304	8	-	10	2	A-3	15.4					100.0	90.3	86.2	83.8	80.6	68.9	37.0	16.5	9.0
R-305	2	-	4	3	A-2-4	5.3					100.0	100.0	99.8	98.4	96.7	85.3	52.9	18.8	11.3
R-305	4	-	6	3	A-2-4	27.2					100.0	98.4	98.2	98.1	97.3	83.7	41.2	18.5	10.5
R-306	8	-	10	2	A-3	19.5					90.0	86.6	85.1	82.1	79.4	64.7	28.0	11.1	6.6
R-307	0	-	2	2	A-3	32.6					100.0	100.0	95.9	94.0	90.6	74.4	39.5	18.6	9.7
R-308	2	-	4	2	A-3	22.6					100.0	100.0	99.9	99.8	98.7	81.7	38.0	10.9	3.5
R-308	4	-	6	2	A-3	85.3					100.0	100.0	99.2	97.3	94.7	78.5	34.3	13.6	7.6
R-309	2	-	4	2	A-3	14.0					100.0	100.0	100.0	100.0	98.5	78.9	31.9	8.6	2.5
R-309	8	-	10	3	A-2-4	10.8					100.0	99.5	93.8	88.3	83.9	67.4	35.0	18.5	13.7
R-310	2	-	4	3A	A-2-6	18.6					100.0	100.0	99.9	99.8	98.4	81.0	40.3	21.9	14.0
R-310	4	-	6	3	A-2-4	20.4					100.0	96.5	89.8	81.5	73.2	56.8	27.2	16.4	12.5
R-313	4	-	6	2	A-3	12.1					100.0	100.0	100.0	100.0	98.0	72.2	25.0	7.0	2.9
R-314	4	-	6	2	A-3	11.8					98.9	98.9	98.2	97.3	96.2	84.7	48.4	19.8	7.0
R-314	8	-	10	2	A-3	17.6					92.0	90.8	88.6	87.8	86.5	70.8	31.6	8.5	3.3
R-315	6	-	8	2	A-3	14.5					100.0	100.0	100.0	100.0	98.4	75.1	31.1	8.3	3.5
R-316	4	-	6	2	A-3	17.5					100.0	100.0	100.0	100.0	98.6	79.9	32.1	12.7	7.8
R-316	6	-	8	2	A-3	10.5					84.8	78.2	75.5	74.7	73.5	57.4	24.4	7.3	3.3
R-317	0	-	2	3	A-2-4	1.2					100.0	87.9	82.8	79.3	76.6	65.3	37.8	20.6	14.6
R-318	0	-	2	3	A-2-4	12.0					82.6	77.9	74.5	71.7	68.4	54.2	34.3	24.6	20.3
R-318	8	-	10	2A	A-1-b	18.7					74.3	69.9	65.8	63.1	60.3	35.3	17.2	10.1	7.4
R-319	8	-	10	3	A-2-4	26.8					100.0	100.0	99.9	99.7	99.2	95.2	75.0	53.1	31.7
R-321	4	-	6	2A	A-1-b	15.2					74.4	68.2	62.8	58.2	54.4	44.9	28.2	18.9	14.6

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
DRIT-1	8	-	10	2	A-3	20.8					100.0	99.5	97.5	92.8	90.1	81.4	47.5	14.9	6.7
DRIT-1	12	-	13.5	3	A-2-4	20.9					100.0	100.0	99.7	98.4	96.9	84.6	52.3	21.0	12.2
DRIT-1	13.5	-	15	3	A-2-4	21.2					100.0	100.0	99.8	98.5	96.9	84.8	52.4	23.5	16.0
DRIT-2	13.5	-	15	2	A-3	22.4					100.0	100.0	100.0	99.7	98.9	85.1	44.4	15.2	7.6
DRIT-2	15	-	20	3	A-2-4	23.9					100.0	99.5	98.3	96.0	94.0	90.8	82.2	43.6	15.8
DRIT-3	0	-	2	2A	A-1-b	12.1					86.3	76.9	68.4	62.1	56.6	50.3	36.1	26.1	22.1
DRIT-3	10	-	12	2	A-3	22.6					100.0	100.0	99.9	99.1	98.3	88.1	44.3	11.5	5.2
DRIT-3	12	-	13.5	3	A-2-4	19.1					100.0	98.1	85.7	73.5	65.3	56.8	42.2	22.7	14.6
DRIT-4	12	-	13.5	3	A-2-4	20.3					100.0	97.7	91.4	80.6	71.3	61.9	43.4	24.9	17.5
DRIT-4	13.5	-	15	3	A-2-4	17.9					100.0	96.2	88.3	75.5	65.8	56.9	39.8	23.8	16.6
DRIT-5	6	-	8	2	A-3	21.7					100.0	100.0	99.9	99.8	98.9	82.0	34.4	7.6	0.1
DRIT-5	15	-	20	3	A-2-4	24.3					100.0	99.6	98.2	96.2	93.3	87.0	55.3	36.0	17.4
DRIT-6	0	-	2	3	A-2-4	20.0					100.0	87.9	77.3	72.1	68.8	59.4	38.3	23.5	16.5
DRIT-6	8	-	10	2	A-3	17.5					100.0	96.9	93.1	90.9	88.7	79.2	46.0	21.3	10.3
DRIT-6	15	-	20	3	A-2-4	23.9					100.0	100.0	99.2	97.1	94.4	89.2	57.0	38.2	18.1
DRIT-7	4	-	6	3	A-2-4	18.2					100.0	91.1	84.0	79.9	76.6	64.4	34.1	15.7	11.1
DRIT-7	12	-	13.5	3	A-2-4	18.7					100.0	99.7	99.2	97.3	92.8	71.9	36.1	22.9	15.2
DRIT-8	2	-	4	3	A-2-4	21.8					100.0	100.0	99.0	98.0	96.7	85.8	50.2	30.8	24.4
DRIT-8	10	-	12	2	A-3	22.7					100.0	100.0	99.9	99.3	98.1	87.7	42.7	12.4	5.8
DRIT-8	15	-	20	3	A-2-4	19.6					100.0	96.7	90.9	84.0	76.6	65.3	45.6	29.0	12.1
DRIT-9	8	-	10	3	A-2-4	24.0					100.0	96.1	94.9	93.1	87.8	75.3	44.4	24.7	18.9
DRIT-9	13.5	-	15	2	A-3	19.1					100.0	100.0	100.0	99.7	98.8	87.3	40.4	10.7	4.5
DRIT-9	15	-	20	3	A-2-4	21.4					98.8	97.2	93.2	89.4	85.7	75.6	52.4	38.2	23.9
DRIT-10	8	-	10	3	A-2-4	16.8					92.2	85.1	76.0	70.8	66.7	56.3	34.1	17.4	10.9
DRIT-10	12	-	13.5	2A	A-1-b	18.1					95.9	85.8	69.1	56.7	49.2	43.0	33.6	21.2	15.9
DRIT-10	15	-	20	3	A-2-4	23.3					100.0	98.3	94.7	88.1	81.0	72.6	53.1	39.8	25.5
DRIT-11	4	-	6	2A	A-1-b	15.2					76.2	63.4	54.6	48.8	41.9	34.7	23.7	15.3	10.9

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
DRIT-11	13.5	-	15	2A	A-1-b	21.6					100.0	95.2	79.3	64.0	55.0	48.0	35.3	22.0	14.5
DRIT-12	6	-	8	2A	A-1-b	13.2					87.7	73.7	66.9	61.4	56.3	48.0	27.4	14.6	10.8
DRIT-12	10	-	12	2	A-3	17.5					100.0	98.4	90.7	80.2	73.0	61.2	36.6	16.8	10.2
DRIT-12	13.5	-	15	3	A-2-4	19.0					100.0	96.3	83.3	68.9	59.4	52.3	38.9	19.8	12.3
DRIT-13	6	-	8	2A	A-1-b	13.1					89.8	77.2	70.8	65.5	61.8	49.9	24.8	13.3	10.1
DRIT-13	8	-	10	2	A-3	20.1					100.0	100.0	98.8	97.5	95.7	72.2	29.0	10.6	7.3
DRIT-14	2	-	4	3	A-2-4	19.2					89.4	82.6	76.2	72.1	68.6	59.5	39.5	27.1	21.5
DRIT-15	2	-	4	2A	A-1-b	20.2					80.0	72.8	65.7	61.6	58.7	49.2	30.0	18.7	13.6
DRIT-15	4	-	6	3	A-2-4	23.4					97.8	88.1	77.8	72.5	65.8	51.2	25.2	13.9	10.8
DRIT-16	6	-	8	2	A-3	13.5					84.7	75.9	70.4	66.9	63.2	50.7	24.6	12.1	9.5
DRIT-16	8	-	10	2	A-3	20.2					97.0	92.3	83.6	75.2	71.1	54.8	24.5	10.9	8.0
DRIT-16	10	-	12	2	A-3	18.6					100.0	87.4	82.0	76.9	72.5	56.4	26.7	12.5	9.7
DRIT-17	10	-	12	3	A-2-4	23.0					100.0	92.6	86.5	83.0	77.9	59.0	27.6	14.4	10.6
DRIT-17	13.5	-	15	2	A-3	23.2					100.0	100.0	100.0	100.0	99.2	87.6	50.5	13.3	4.0
DRIT-18	6	-	8	3	A-2-4	32.0					94.8	89.7	84.1	77.7	69.8	51.0	27.8	21.8	18.8
DRIT-18	8	-	10	3	A-2-4	26.7					100.0	89.6	84.1	79.9	74.3	54.9	29.3	22.1	18.7
DRIT-18	10	-	12	3	A-2-4	25.6					100.0	91.3	81.6	74.2	67.0	51.1	27.7	15.0	10.5
DRIT-19	6	-	8	3A	A-2-6			24.9	13.5	11.5									
DRIT-19	8	-	10	3A	A-2-6	22.5					100.0	100.0	100.0	100.0	99.2	81.5	36.8	21.0	18.5
DRIT-20	0	-	2	3	A-2-4	17.8					100.0	97.4	93.2	89.1	85.4	73.0	45.2	27.4	21.9
DRIT-20	13.5	-	15	2	A-3	17.3					100.0	96.3	93.0	90.9	88.3	70.3	35.8	15.1	5.5
DRIT-20	15	-	20	2	A-3	18.4					100.0	90.0	87.5	86.8	84.9	70.7	30.2	9.9	3.4

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 2]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-101A	8	-	10	2	A-3	18.6					100.0	96.1	88.7	82.7	80.0	74.8	50.5	16.9	7.1
R-101	8	-	10	2	A-3	15.9					100.0	92.7	82.4	75.0	71.3	64.4	41.0	16.2	7.6
R-102	8	-	10	2	A-3	14.0					94.1	79.7	68.7	63.9	61.5	55.9	36.1	14.6	7.8
R-105	2	-	4	2	A-3	10.4					100.0	97.6	94.9	91.7	88.7	77.6	44.9	21.5	9.4
R-105	4	-	6	2	A-3	5.9					100.0	88.4	85.5	82.3	80.0	69.1	36.2	14.3	8.6
R-106	6	-	8	2	A-3	8.2					100.0	100.0	98.3	95.4	93.0	81.2	45.0	13.6	5.6
R-107	8	-	10	2	A-3	16.1					92.7	84.1	74.8	68.9	64.0	52.2	27.2	12.7	6.7
R-108	6	-	8	2	A-3	19.5					100.0	96.5	93.4	90.7	87.5	73.9	38.5	13.2	6.6
R-109	4	-	6	2	A-3	13.5					100.0	100.0	99.5	99.2	98.1	81.3	36.0	10.4	4.0
R-110	2	-	4	2	A-3	14.1					89.4	83.0	74.5	68.2	63.0	53.8	38.0	19.5	9.3
R-110	6	-	8	2	A-3	9.6					100.0	99.4	96.8	93.9	91.3	81.0	53.3	17.3	6.9
R-201A	8	-	10	2	A-3	19.0					100.0	93.4	89.2	84.7	82.2	74.6	53.7	19.6	8.9
R-201B	6	-	8	2	A-3	13.5					96.9	87.9	76.8	68.0	62.4	55.1	54.6	15.7	9.5
R-202	8	-	10	2	A-3	13.3					100.0	85.3	77.8	72.1	69.1	62.3	38.8	15.9	9.0
R-204	4	-	6	2	A-3	28.8					96.2	96.2	95.6	95.2	94.4	80.9	37.4	14.5	9.4
R-204	8	-	10	2	A-3	9.3					82.6	76.8	74.0	72.3	70.8	61.9	33.3	15.0	9.2
R-205	6	-	8	2	A-3	13.5					93.4	81.0	74.7	68.8	65.1	55.9	29.1	11.9	9.5
R-205	8	-	10	2	A-3	14.7					98.0	92.0	84.4	79.1	75.7	65.3	34.8	14.4	9.4
R-207	8	-	10	2	A-3	14.5					100.0	97.8	93.7	91.9	90.1	73.6	40.6	13.3	7.3
R-208	8	-	10	2	A-3	17.7					100.0	92.4	84.9	77.5	70.6	54.9	27.1	13.2	9.7
R-209	2	-	4	2	A-3	15.9	1.6												
R-209	8	-	10	2	A-3	18.5					100.0	92.4	80.7	73.6	68.0	53.2	25.0	11.6	8.0
R-210	6	-	8	2	A-3	10.9					91.8	85.4	81.9	76.7	72.8	54.3	23.7	10.6	7.8
R-211	4	-	6	2	A-3	10.8					96.0	87.5	81.4	77.3	73.8	57.4	22.2	7.8	4.5
R-212	8	-	10	2	A-3	21.2					100.0	98.1	91.5	85.4	78.7	59.3	27.6	14.5	10.1
R-213	4	-	6	2	A-3	17.5					100.0	100.0	99.9	99.9	99.4	82.1	34.8	15.8	9.9

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 2]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-213	8	-	10	2	A-3	17.7					100.0	100.0	97.3	94.6	90.3	69.5	26.3	11.3	7.4
R-214	6	-	8	2	A-3	15.8					100.0	100.0	100.0	99.9	99.0	80.7	43.7	18.7	10.4
R-215	2	-	4	2	A-3						100.0	100.0	100.0	100.0	98.6	75.9	25.2	5.8	2.0
R-216	4	-	6	2	A-3	18.7					100.0	100.0	100.0	100.0	99.0	81.0	34.2	9.0	1.4
R-216	8	-	10	2	A-3	9.9					100.0	100.0	100.0	100.0	98.7	77.1	31.4	10.6	5.2
R-217	6	-	8	2	A-3	12.0					100.0	87.4	78.5	71.8	67.9	53.7	24.4	8.8	5.6
R-217	8	-	10	2	A-3	13.5					100.0	93.1	89.7	87.4	84.6	65.3	29.4	11.0	5.4
R-220	2	-	4	2	A-3	19.4					100.0	97.7	93.7	91.2	87.8	73.2	38.6	19.4	10.2
R-220	4	-	6	2	A-3	54.1					100.0	99.7	99.0	95.0	89.0	70.1	34.1	17.7	10.0
R-301A	2	-	4	2	A-3	36.4					100.0	100.0	99.5	98.7	97.7	88.1	43.4	9.8	3.5
R-301A	6	-	8	2	A-3	26.2					96.7	89.4	81.9	77.4	73.6	66.5	41.2	14.0	6.6
R-302	8	-	10	2	A-3	17.2					100.0	90.0	75.2	70.1	67.5	60.7	35.0	13.3	7.7
R-303	2	-	4	2	A-3	8.5					95.3	81.9	76.7	73.2	71.1	61.7	30.6	11.3	6.5
R-303	8	-	10	2	A-3	11.1					100.0	100.0	100.0	100.0	99.3	82.8	38.9	9.5	3.1
R-304	8	-	10	2	A-3	15.4					100.0	90.3	86.2	83.8	80.6	68.9	37.0	16.5	9.0
R-306	8	-	10	2	A-3	19.5					90.0	86.6	85.1	82.1	79.4	64.7	28.0	11.1	6.6
R-307	0	-	2	2	A-3	32.6					100.0	100.0	95.9	94.0	90.6	74.4	39.5	18.6	9.7
R-308	2	-	4	2	A-3	22.6					100.0	100.0	99.9	99.8	98.7	81.7	38.0	10.9	3.5
R-308	4	-	6	2	A-3	85.3					100.0	100.0	99.2	97.3	94.7	78.5	34.3	13.6	7.6
R-309	2	-	4	2	A-3	14.0					100.0	100.0	100.0	100.0	98.5	78.9	31.9	8.6	2.5
R-313	4	-	6	2	A-3	12.1					100.0	100.0	100.0	100.0	98.0	72.2	25.0	7.0	2.9
R-314	4	-	6	2	A-3	11.8					98.9	98.9	98.2	97.3	96.2	84.7	48.4	19.8	7.0
R-314	8	-	10	2	A-3	17.6					92.0	90.8	88.6	87.8	86.5	70.8	31.6	8.5	3.3
R-315	6	-	8	2	A-3	14.5					100.0	100.0	100.0	100.0	98.4	75.1	31.1	8.3	3.5
R-316	4	-	6	2	A-3	17.5					100.0	100.0	100.0	100.0	98.6	79.9	32.1	12.7	7.8
R-316	6	-	8	2	A-3	10.5					84.8	78.2	75.5	74.7	73.5	57.4	24.4	7.3	3.3
DRIT-1	8	-	10	2	A-3	20.8					100.0	99.5	97.5	92.8	90.1	81.4	47.5	14.9	6.7

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 2]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
DRIT-2	13.5	-	15	2	A-3	22.4					100.0	100.0	100.0	99.7	98.9	85.1	44.4	15.2	7.6
DRIT-3	10	-	12	2	A-3	22.6					100.0	100.0	99.9	99.1	98.3	88.1	44.3	11.5	5.2
DRIT-5	6	-	8	2	A-3	21.7					100.0	100.0	99.9	99.8	98.9	82.0	34.4	7.6	0.1
DRIT-6	8	-	10	2	A-3	17.5					100.0	96.9	93.1	90.9	88.7	79.2	46.0	21.3	10.3
DRIT-8	10	-	12	2	A-3	22.7					100.0	100.0	99.9	99.3	98.1	87.7	42.7	12.4	5.8
DRIT-9	13.5	-	15	2	A-3	19.1					100.0	100.0	100.0	99.7	98.8	87.3	40.4	10.7	4.5
DRIT-12	10	-	12	2	A-3	17.5					100.0	98.4	90.7	80.2	73.0	61.2	36.6	16.8	10.2
DRIT-13	8	-	10	2	A-3	20.1					100.0	100.0	98.8	97.5	95.7	72.2	29.0	10.6	7.3
DRIT-16	6	-	8	2	A-3	13.5					84.7	75.9	70.4	66.9	63.2	50.7	24.6	12.1	9.5
DRIT-16	8	-	10	2	A-3	20.2					97.0	92.3	83.6	75.2	71.1	54.8	24.5	10.9	8.0
DRIT-16	10	-	12	2	A-3	18.6					100.0	87.4	82.0	76.9	72.5	56.4	26.7	12.5	9.7
DRIT-17	13.5	-	15	2	A-3	23.2					100.0	100.0	100.0	100.0	99.2	87.6	50.5	13.3	4.0
DRIT-20	13.5	-	15	2	A-3	17.3					100.0	96.3	93.0	90.9	88.3	70.3	35.8	15.1	5.5
DRIT-20	15	-	20	2	A-3	18.4					100.0	90.0	87.5	86.8	84.9	70.7	30.2	9.9	3.4

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 2A]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-101B	6	-	8	2A	A-1-b	12.1					91.1	79.1	64.9	55.4	49.5	43.8	30.5	16.3	10.9
R-206	6	-	8	2A	A-1-b	24.6					89.0	74.8	69.2	64.6	59.0	50.1	34.5	23.5	17.1
R-206	8	-	10	2A	A-1-b	20.8					85.4	73.0	65.0	60.4	57.1	48.1	28.6	16.1	9.8
R-208	6	-	8	2A	A-1-b	13.7					86.7	75.3	69.3	85.5	59.5	49.8	31.5	19.2	13.1
R-219	2	-	4	2A	A-1-b	11.1					88.6	72.5	56.8	47.5	42.2	36.7	28.3	22.5	19.4
R-318	8	-	10	2A	A-1-b	18.7					74.3	69.9	65.8	63.1	60.3	35.3	17.2	10.1	7.4
R-321	4	-	6	2A	A-1-b	15.2					74.4	68.2	62.8	58.2	54.4	44.9	28.2	18.9	14.6
DRIT-3	0	-	2	2A	A-1-b	12.1					86.3	76.9	68.4	62.1	56.6	50.3	36.1	26.1	22.1
DRIT-10	12	-	13.5	2A	A-1-b	18.1					95.9	85.8	69.1	56.7	49.2	43.0	33.6	21.2	15.9
DRIT-11	4	-	6	2A	A-1-b	15.2					76.2	63.4	54.6	48.8	41.9	34.7	23.7	15.3	10.9
DRIT-11	13.5	-	15	2A	A-1-b	21.6					100.0	95.2	79.3	64.0	55.0	48.0	35.3	22.0	14.5
DRIT-12	6	-	8	2A	A-1-b	13.2					87.7	73.7	66.9	61.4	56.3	48.0	27.4	14.6	10.8
DRIT-13	6	-	8	2A	A-1-b	13.1					89.8	77.2	70.8	65.5	61.8	49.9	24.8	13.3	10.1
DRIT-15	2	-	4	2A	A-1-b	20.2					80.0	72.8	65.7	61.6	58.7	49.2	30.0	18.7	13.6

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 3]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-103	4	-	6	3	A-2-4	26.4					100.0	94.1	91.3	88.2	83.0	73.3	47.3	24.4	17.3
R-109	6	-	8	3	A-2-4	25.1					100.0	99.3	97.2	95.0	92.1	79.5	45.9	24.4	15.6
R-201A	6	-	8	3	A-2-4	14.5					93.0	83.1	71.0	63.7	59.5	54.4	39.4	19.3	13.6
R-201	0	-	2	3	A-2-4	14.7					92.6	82.6	79.2	75.8	71.5	63.5	41.5	26.0	21.6
R-206	4	-	6	3	A-2-4	38.6					100.0	100.0	97.8	95.7	89.6	72.6	41.2	19.8	12.5
R-210	2	-	4	3	A-2-4	20.0					95.8	91.3	87.7	86.0	84.2	70.2	38.0	21.9	15.8
R-213	2	-	4	3	A-2-4	15.7					100.0	100.0	100.0	100.0	99.1	84.0	43.3	22.8	14.1
R-214	8	-	10	3	A-2-4	17.6					100.0	99.1	98.3	97.7	96.3	80.4	45.4	24.7	13.3
R-215	8	-	10	3	A-2-4	17.5					100.0	99.5	97.5	97.1	95.7	80.4	42.7	20.8	10.6
R-219	0	-	2	3	A-2-4	14.9					100.0	96.1	92.8	91.2	89.7	77.6	51.2	37.2	30.9
R-220	6	-	8	3	A-2-4	23.3					100.0	90.9	85.0	80.2	73.0	60.4	40.4	29.4	24.0
R-305	2	-	4	3	A-2-4	5.3					100.0	100.0	99.8	98.4	96.7	85.3	52.9	18.8	11.3
R-305	4	-	6	3	A-2-4	27.2					100.0	98.4	98.2	98.1	97.3	83.7	41.2	18.5	10.5
R-309	8	-	10	3	A-2-4	10.8					100.0	99.5	93.8	88.3	83.9	67.4	35.0	18.5	13.7
R-310	4	-	6	3	A-2-4	20.4					100.0	96.5	89.8	81.5	73.2	56.8	27.2	16.4	12.5
R-317	0	-	2	3	A-2-4	1.2					100.0	87.9	82.8	79.3	76.6	65.3	37.8	20.6	14.6
R-318	0	-	2	3	A-2-4	12.0					82.6	77.9	74.5	71.7	68.4	54.2	34.3	24.6	20.3
R-319	8	-	10	3	A-2-4	26.8					100.0	100.0	99.9	99.7	99.2	95.2	75.0	53.1	31.7
DRIT-1	12	-	13.5	3	A-2-4	20.9					100.0	100.0	99.7	98.4	96.9	84.6	52.3	21.0	12.2
DRIT-1	13.5	-	15	3	A-2-4	21.2					100.0	100.0	99.8	98.5	96.9	84.8	52.4	23.5	16.0
DRIT-2	15	-	20	3	A-2-4	23.9					100.0	99.5	98.3	96.0	94.0	90.8	82.2	43.6	15.8
DRIT-3	12	-	13.5	3	A-2-4	19.1					100.0	98.1	85.7	73.5	65.3	56.8	42.2	22.7	14.6
DRIT-4	12	-	13.5	3	A-2-4	20.3					100.0	97.7	91.4	80.6	71.3	61.9	43.4	24.9	17.5
DRIT-4	13.5	-	15	3	A-2-4	17.9					100.0	96.2	88.3	75.5	65.8	56.9	39.8	23.8	16.6
DRIT-5	15	-	20	3	A-2-4	24.3					100.0	99.6	98.2	96.2	93.3	87.0	55.3	36.0	17.4
DRIT-6	0	-	2	3	A-2-4	20.0					100.0	87.9	77.3	72.1	68.8	59.4	38.3	23.5	16.5

TABLE - 1

SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 3]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
DRIT-6	15	-	20	3	A-2-4	23.9					100.0	100.0	99.2	97.1	94.4	89.2	57.0	38.2	18.1
DRIT-7	4	-	6	3	A-2-4	18.2					100.0	91.1	84.0	79.9	76.6	64.4	34.1	15.7	11.1
DRIT-7	12	-	13.5	3	A-2-4	18.7					100.0	99.7	99.2	97.3	92.8	71.9	36.1	22.9	15.2
DRIT-8	2	-	4	3	A-2-4	21.8					100.0	100.0	99.0	98.0	96.7	85.8	50.2	30.8	24.4
DRIT-8	15	-	20	3	A-2-4	19.6					100.0	96.7	90.9	84.0	76.6	65.3	45.6	29.0	12.1
DRIT-9	8	-	10	3	A-2-4	24.0					100.0	96.1	94.9	93.1	87.8	75.3	44.4	24.7	18.9
DRIT-9	15	-	20	3	A-2-4	21.4					98.8	97.2	93.2	89.4	85.7	75.6	52.4	38.2	23.9
DRIT-10	8	-	10	3	A-2-4	16.8					92.2	85.1	76.0	70.8	66.7	56.3	34.1	17.4	10.9
DRIT-10	15	-	20	3	A-2-4	23.3					100.0	98.3	94.7	88.1	81.0	72.6	53.1	39.8	25.5
DRIT-12	13.5	-	15	3	A-2-4	19.0					100.0	96.3	83.3	68.9	59.4	52.3	38.9	19.8	12.3
DRIT-14	2	-	4	3	A-2-4	19.2					89.4	82.6	76.2	72.1	68.6	59.5	39.5	27.1	21.5
DRIT-15	4	-	6	3	A-2-4	23.4					97.8	88.1	77.8	72.5	65.8	51.2	25.2	13.9	10.8
DRIT-17	10	-	12	3	A-2-4	23.0					100.0	92.6	86.5	83.0	77.9	59.0	27.6	14.4	10.6
DRIT-18	6	-	8	3	A-2-4	32.0					94.8	89.7	84.1	77.7	69.8	51.0	27.8	21.8	18.8
DRIT-18	8	-	10	3	A-2-4	26.7					100.0	89.6	84.1	79.9	74.3	54.9	29.3	22.1	18.7
DRIT-18	10	-	12	3	A-2-4	25.6					100.0	91.3	81.6	74.2	67.0	51.1	27.7	15.0	10.5
DRIT-20	0	-	2	3	A-2-4	17.8					100.0	97.4	93.2	89.1	85.4	73.0	45.2	27.4	21.9

TABLE - 1

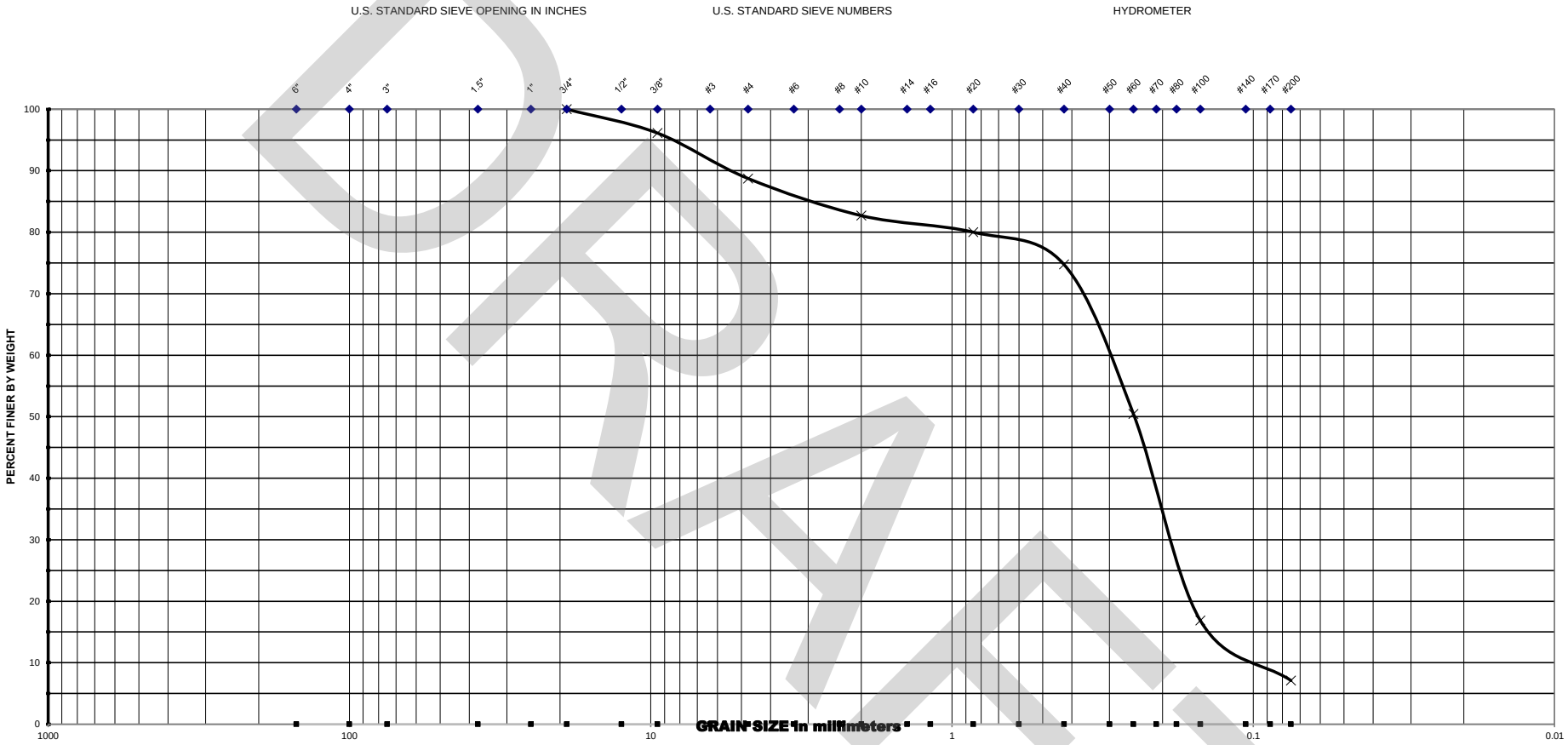
SUMMARY OF LABORATORY TESTING RESULTS [STRATUM 3A]

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Sample Depth (ft)			Stratum	AASHTO Symbol	Natural Moisture Content (%)	Organic Content (%)	Atterberg Limits			Sieve Analysis								
								LL (%)	PL (%)	PI (%)	3/4"	3/8"	#4	#10	#20	#40	#60	#100	#200
R-103	0	-	2	3A	A-2-6			29.6	13.5	16.1									
R-221	2	-	4	3A	A-2-6			22.2	11.1	11.1									
R-310	2	-	4	3A	A-2-6	18.6					100.0	100.0	99.9	99.8	98.4	81.0	40.3	21.9	14.0
DRIT-19	6	-	8	3A	A-2-6			24.9	13.5	11.5									
DRIT-19	8	-	10	3A	A-2-6	22.5					100.0	100.0	100.0	100.0	99.2	81.5	36.8	21.0	18.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

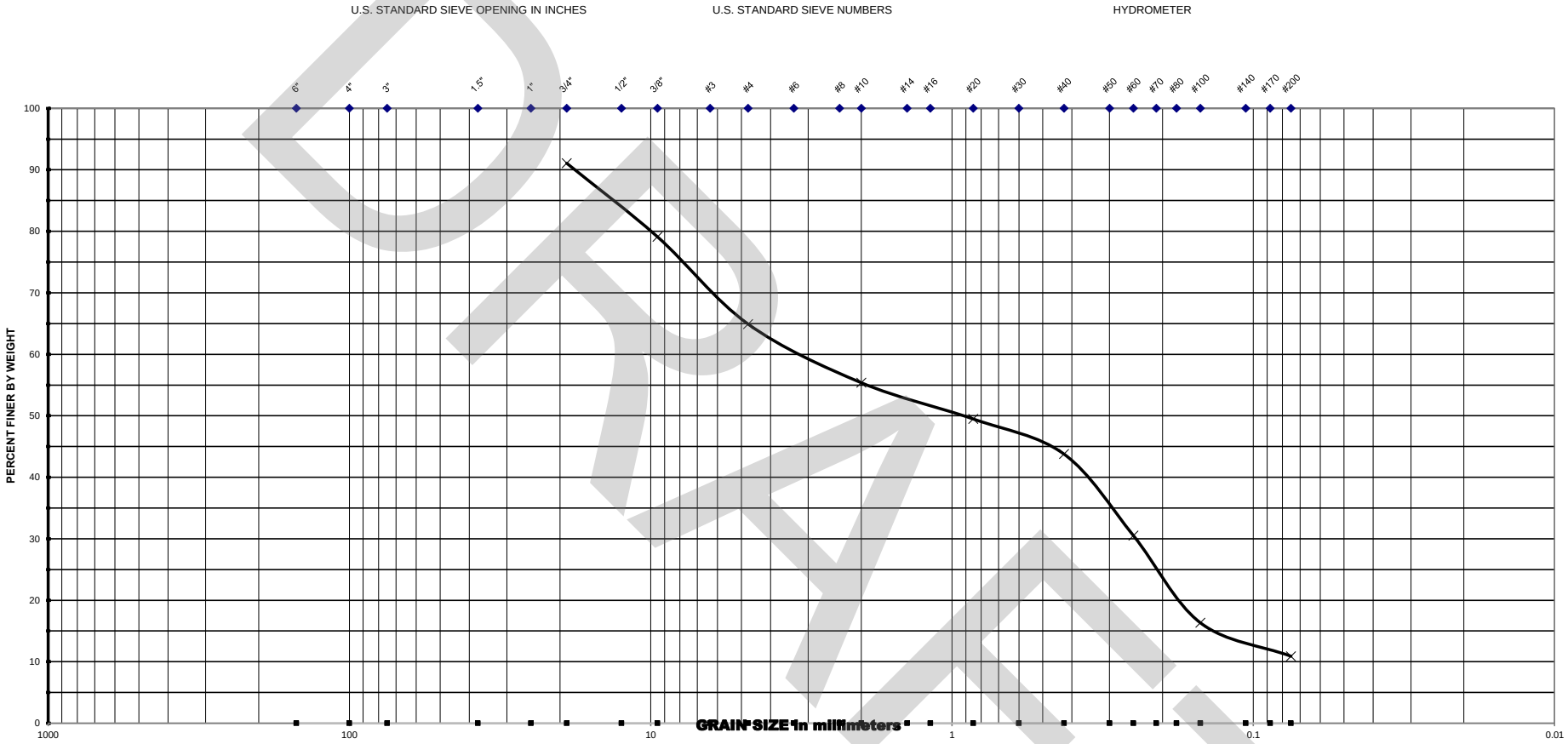
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-101A	8.0 - 10.0	A-3	18.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.1
#4	88.7
#10	82.7
#20	80.0
#40	74.8
#60	50.5
#100	16.9
#200	7.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

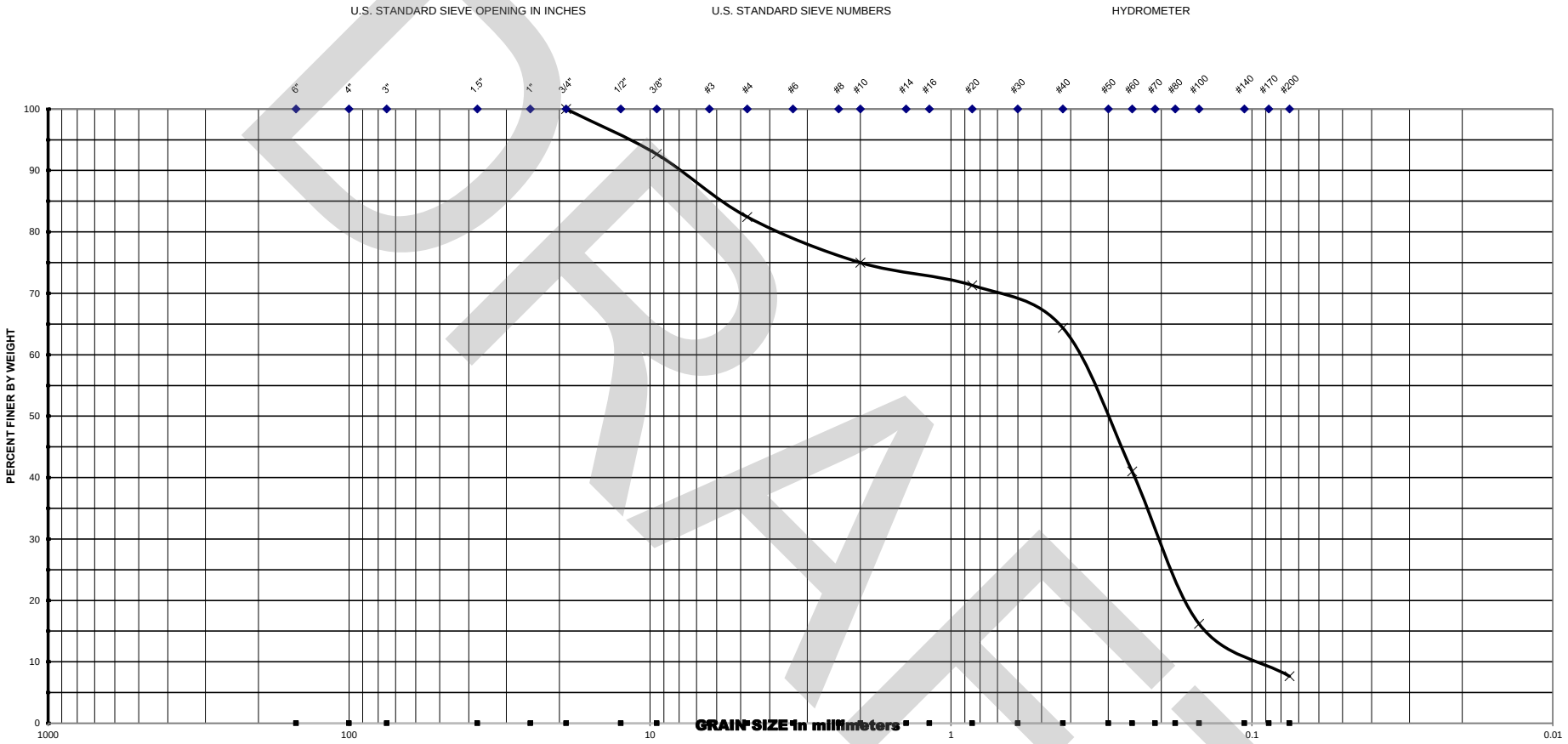
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-101B	6.0 - 8.0	A-1-b	12.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	91.1
3/8"	79.1
#4	64.9
#10	55.4
#20	49.5
#40	43.8
#60	30.5
#100	16.3
#200	10.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

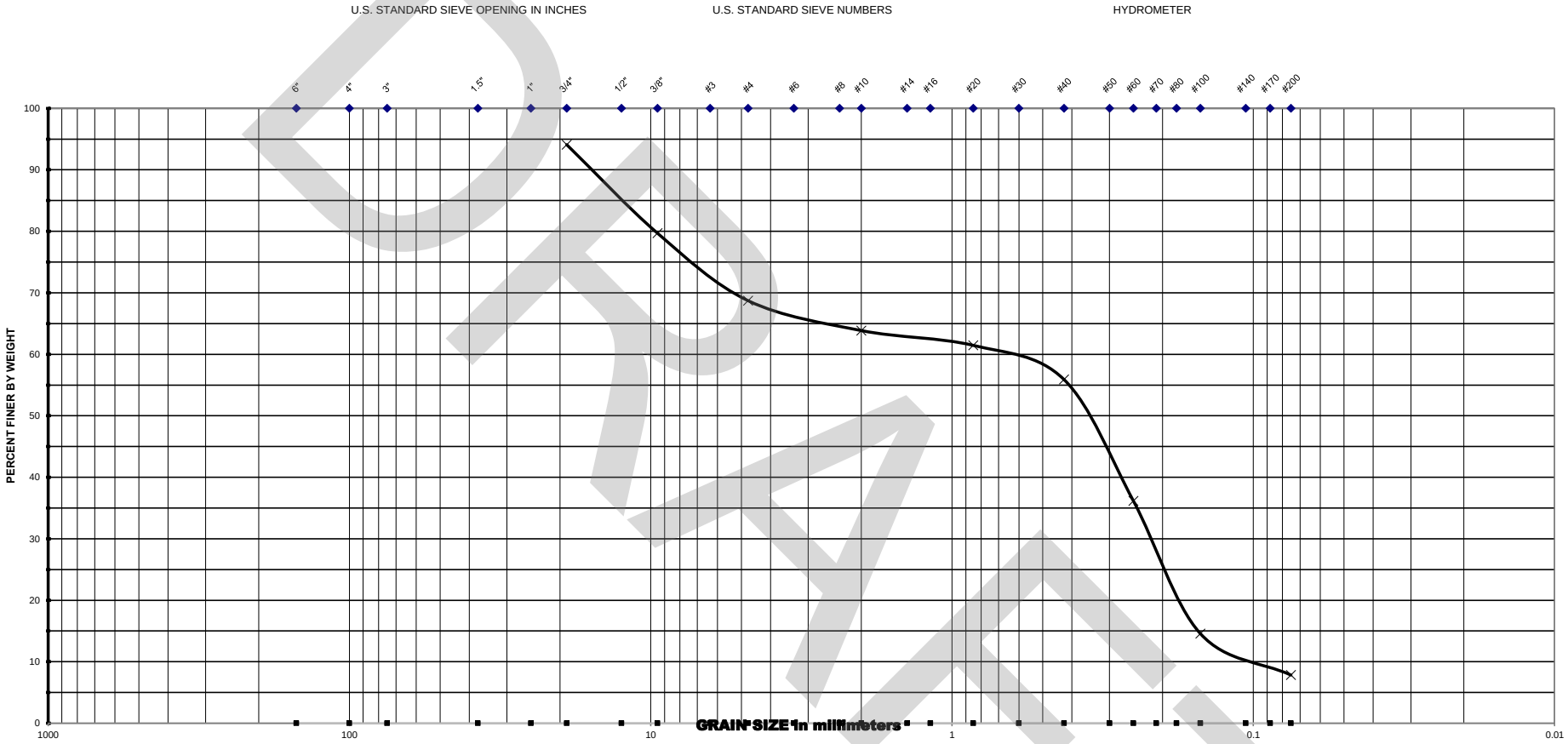
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-101	8.0 - 10.0	A-3	15.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	92.7
#4	82.4
#10	75.0
#20	71.3
#40	64.4
#60	41.0
#100	16.2
#200	7.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

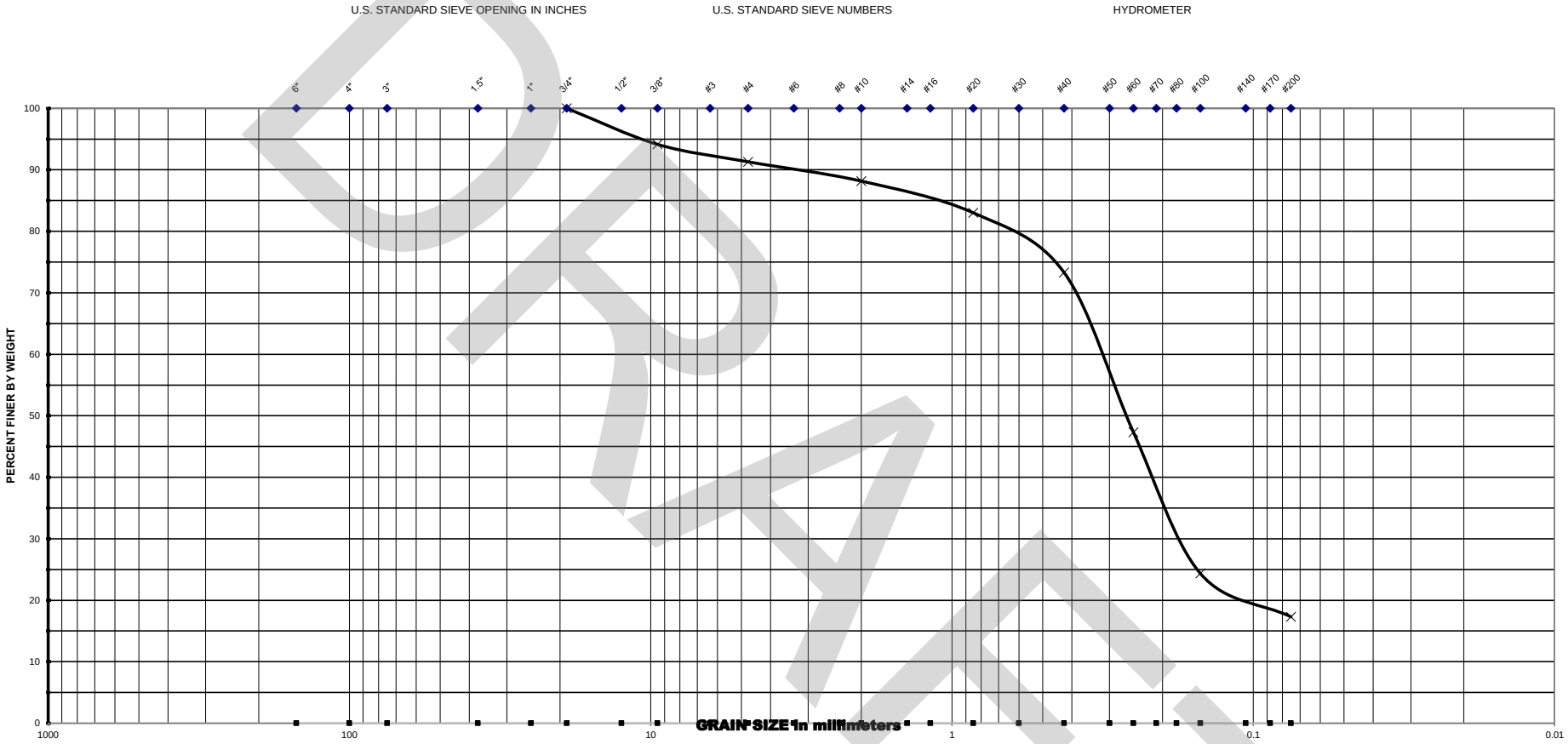
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-102	8.0 - 10.0	A-3	14.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	94.1
3/8"	79.7
#4	68.7
#10	63.9
#20	61.5
#40	55.9
#60	36.1
#100	14.6
#200	7.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

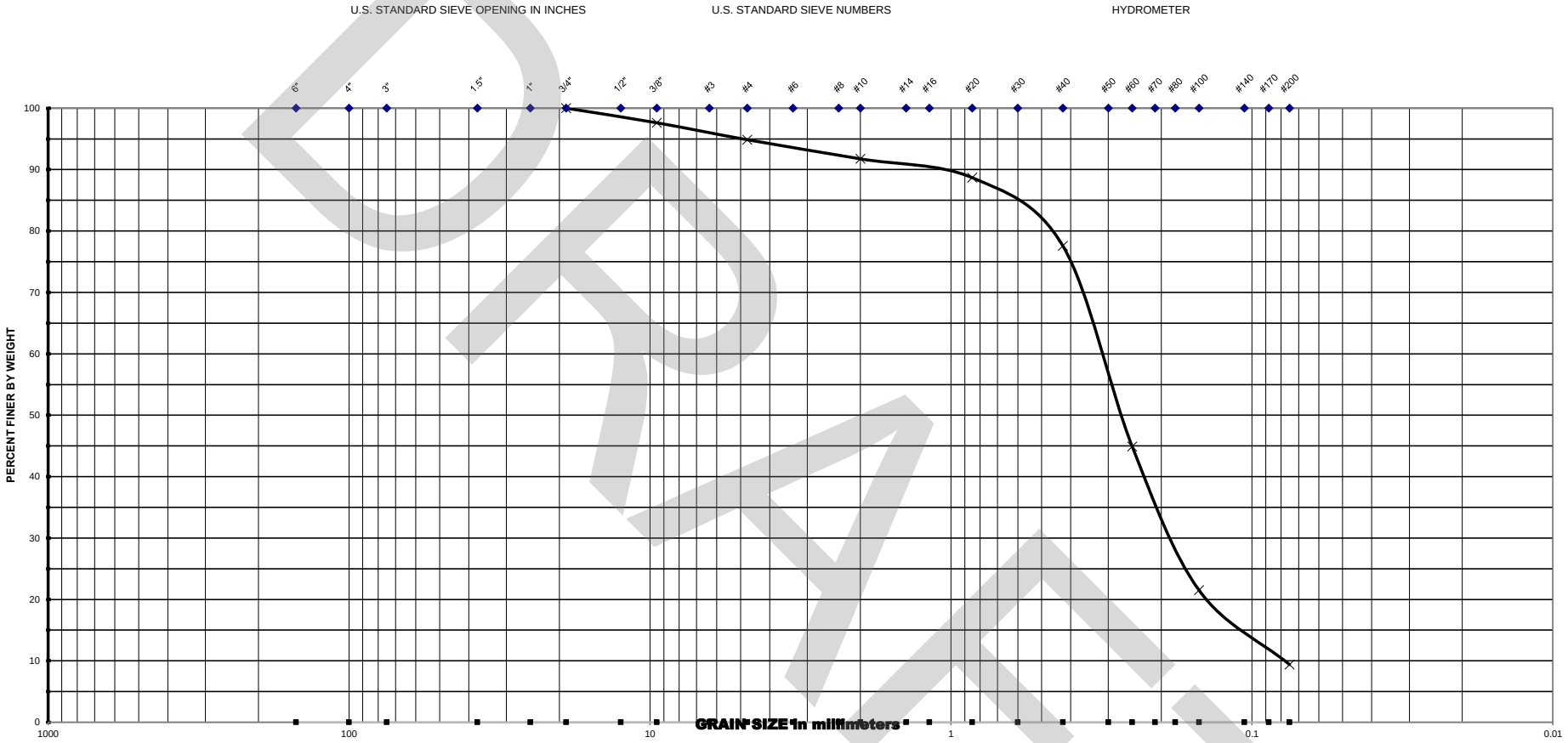
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-103	4.0 - 6.0	A-2-4	26.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	94.1
#4	91.3
#10	88.2
#20	83.0
#40	73.3
#60	47.3
#100	24.4
#200	17.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

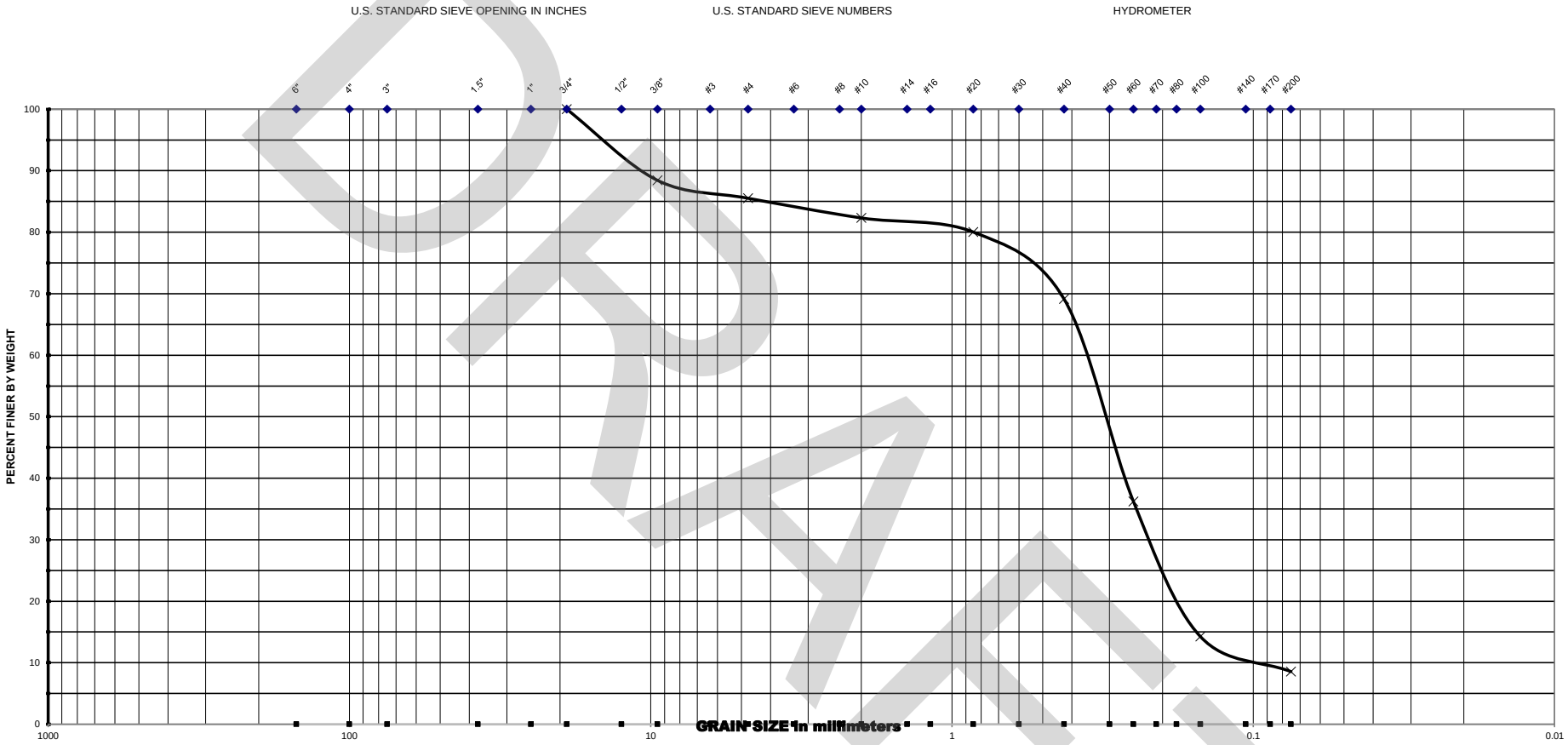
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-105	2.0 - 4.0	A-3	10.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	97.6
#4	94.9
#10	91.7
#20	88.7
#40	77.6
#60	44.9
#100	21.5
#200	9.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

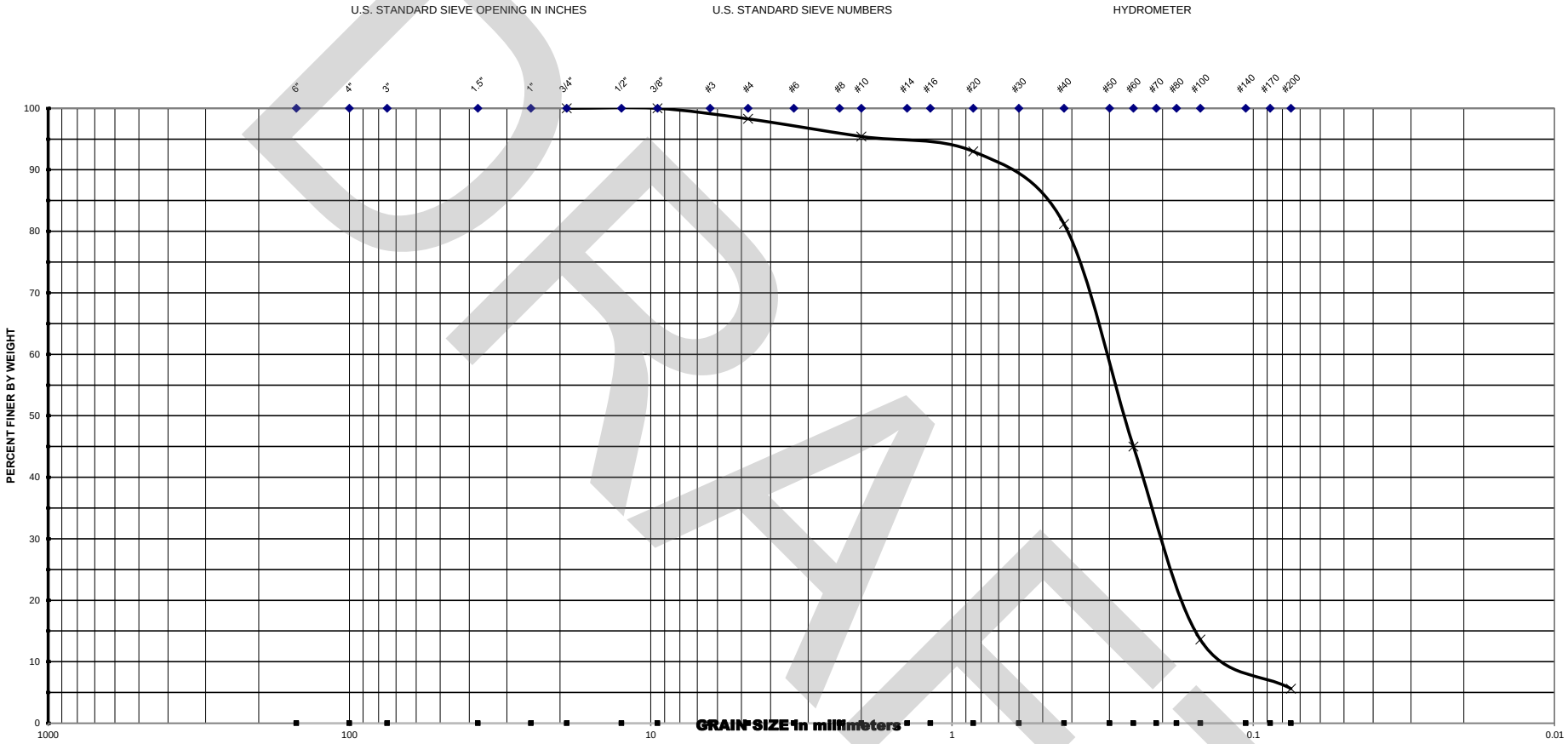
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-105	4.0 - 6.0	A-3	5.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	88.4
#4	85.5
#10	82.3
#20	80.0
#40	69.1
#60	36.2
#100	14.3
#200	8.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

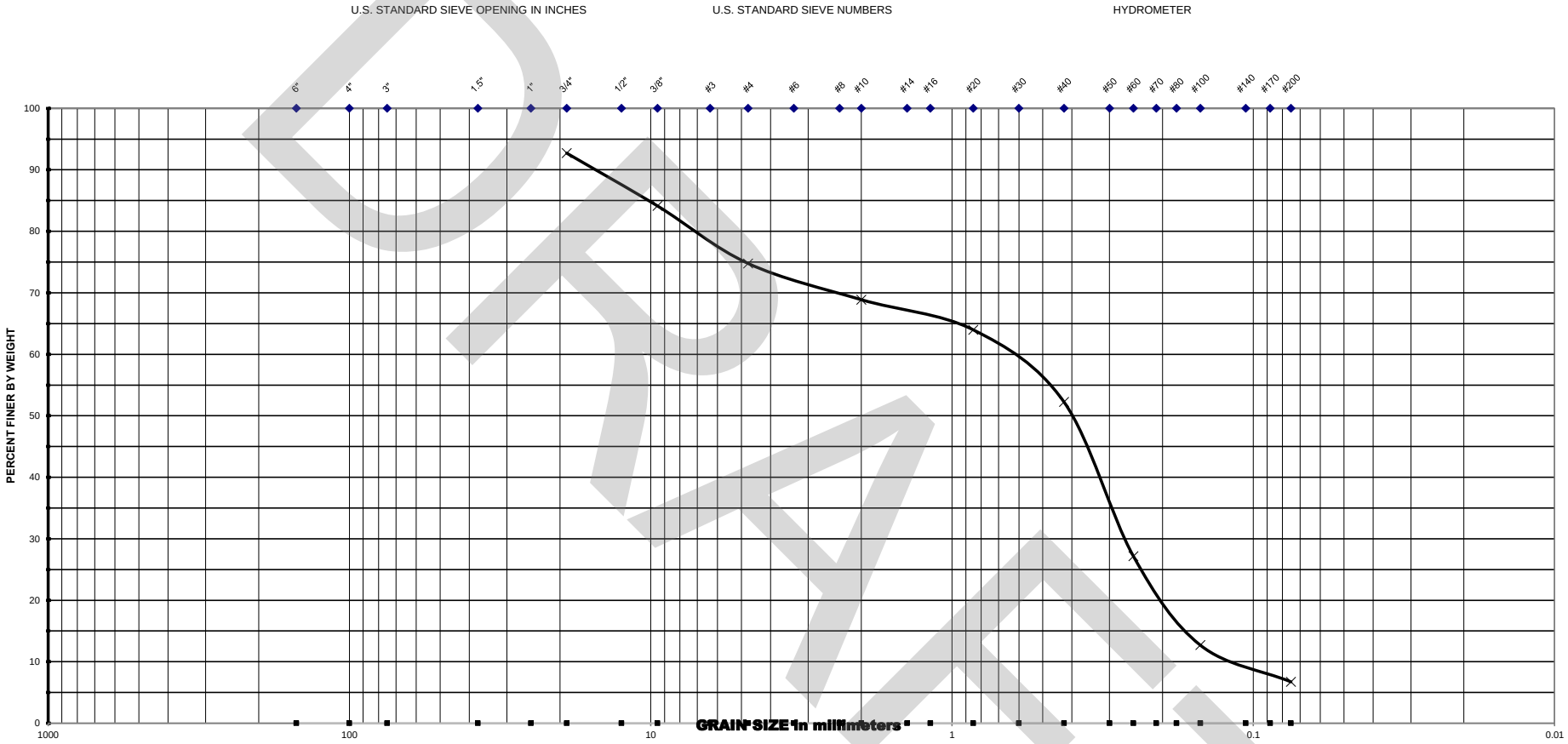
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-106	6.0 - 8.0	A-3	8.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	98.3
#10	95.4
#20	93.0
#40	81.2
#60	45.0
#100	13.6
#200	5.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

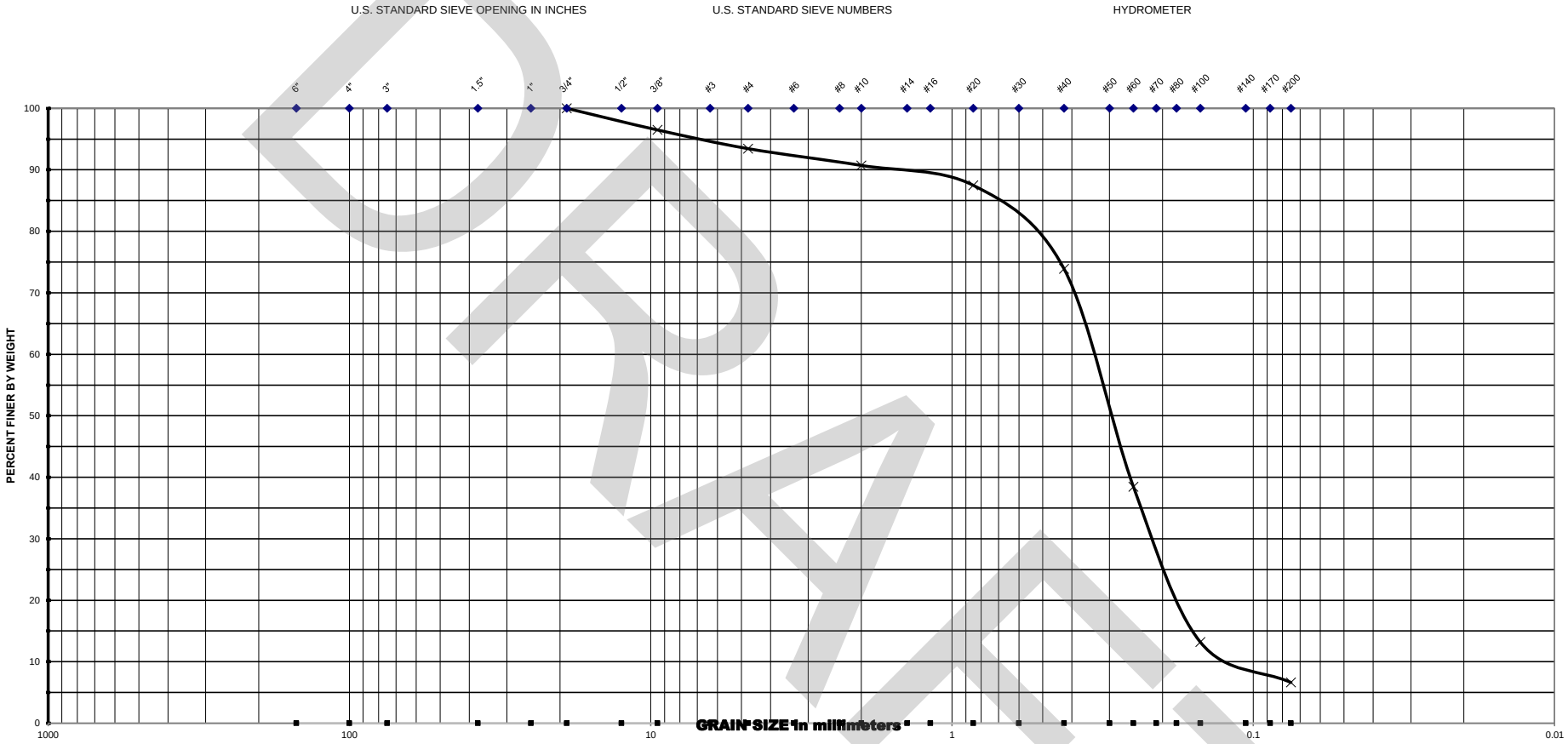
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-107	8.0 - 10.0	A-3	16.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	92.7
3/8"	84.1
#4	74.8
#10	68.9
#20	64.0
#40	52.2
#60	27.2
#100	12.7
#200	6.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

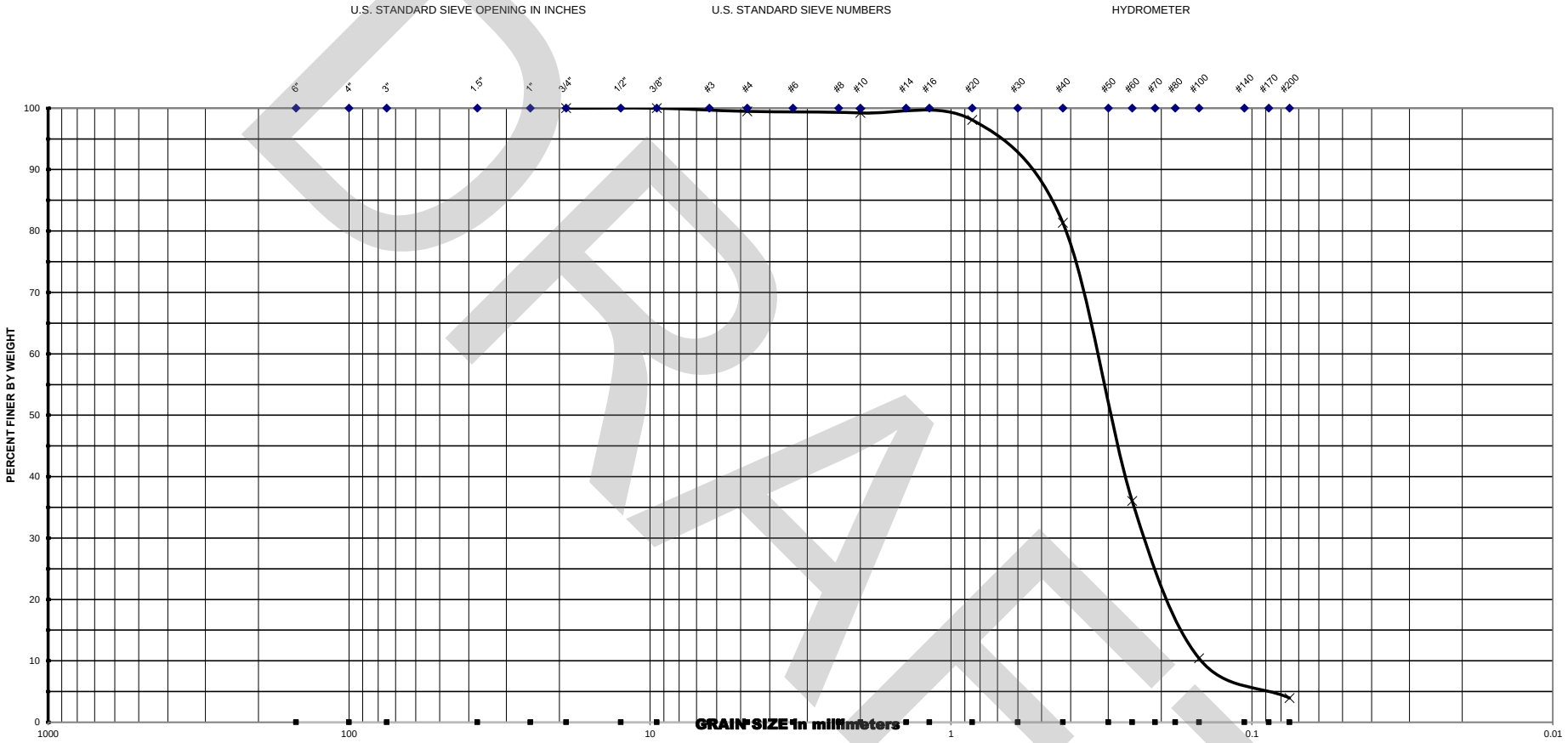
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-108	6.0 - 8.0	A-3	19.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.5
#4	93.4
#10	90.7
#20	87.5
#40	73.9
#60	38.5
#100	13.2
#200	6.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

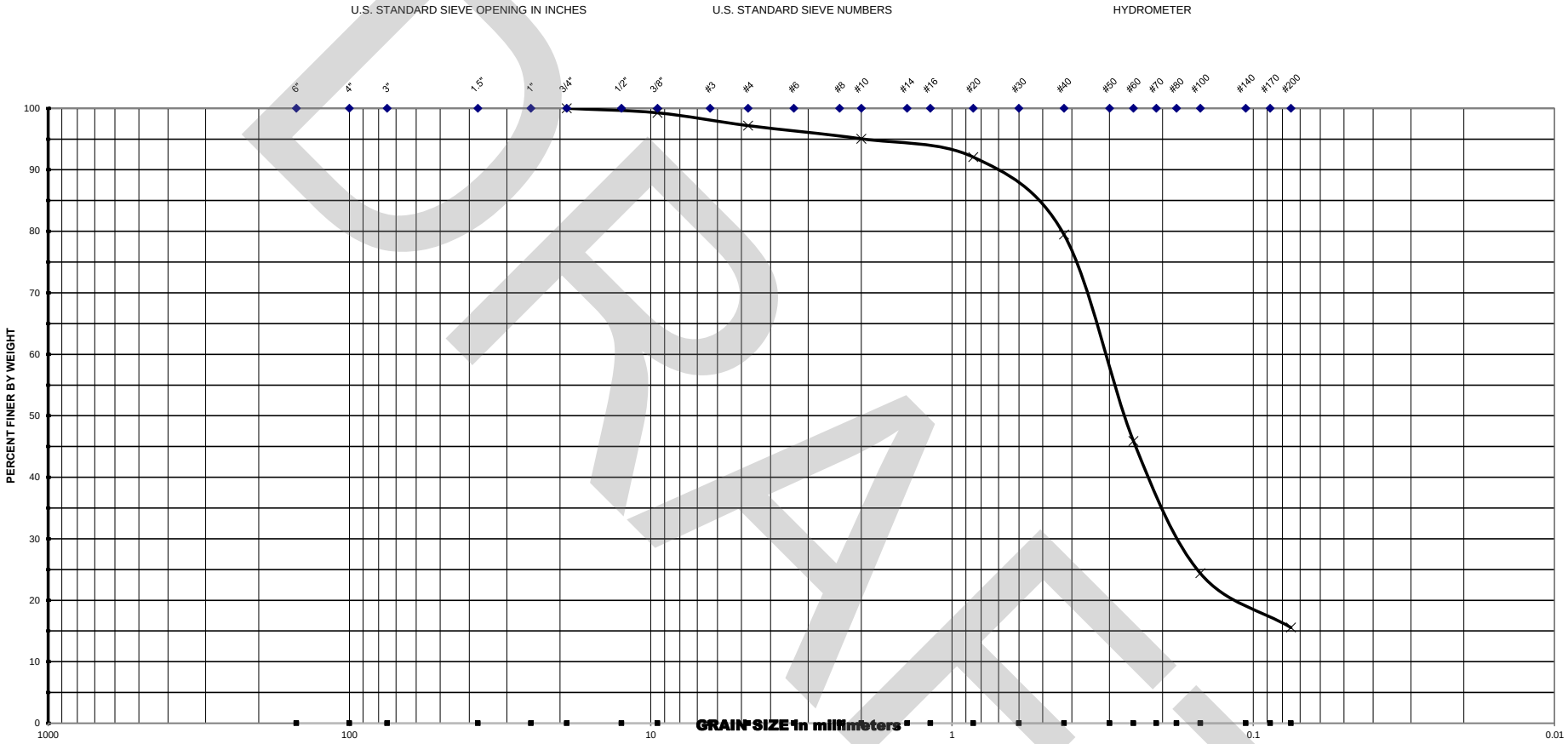
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-109	4.0 - 6.0	A-3	13.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.5
#10	99.2
#20	98.1
#40	81.3
#60	36.0
#100	10.4
#200	4.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

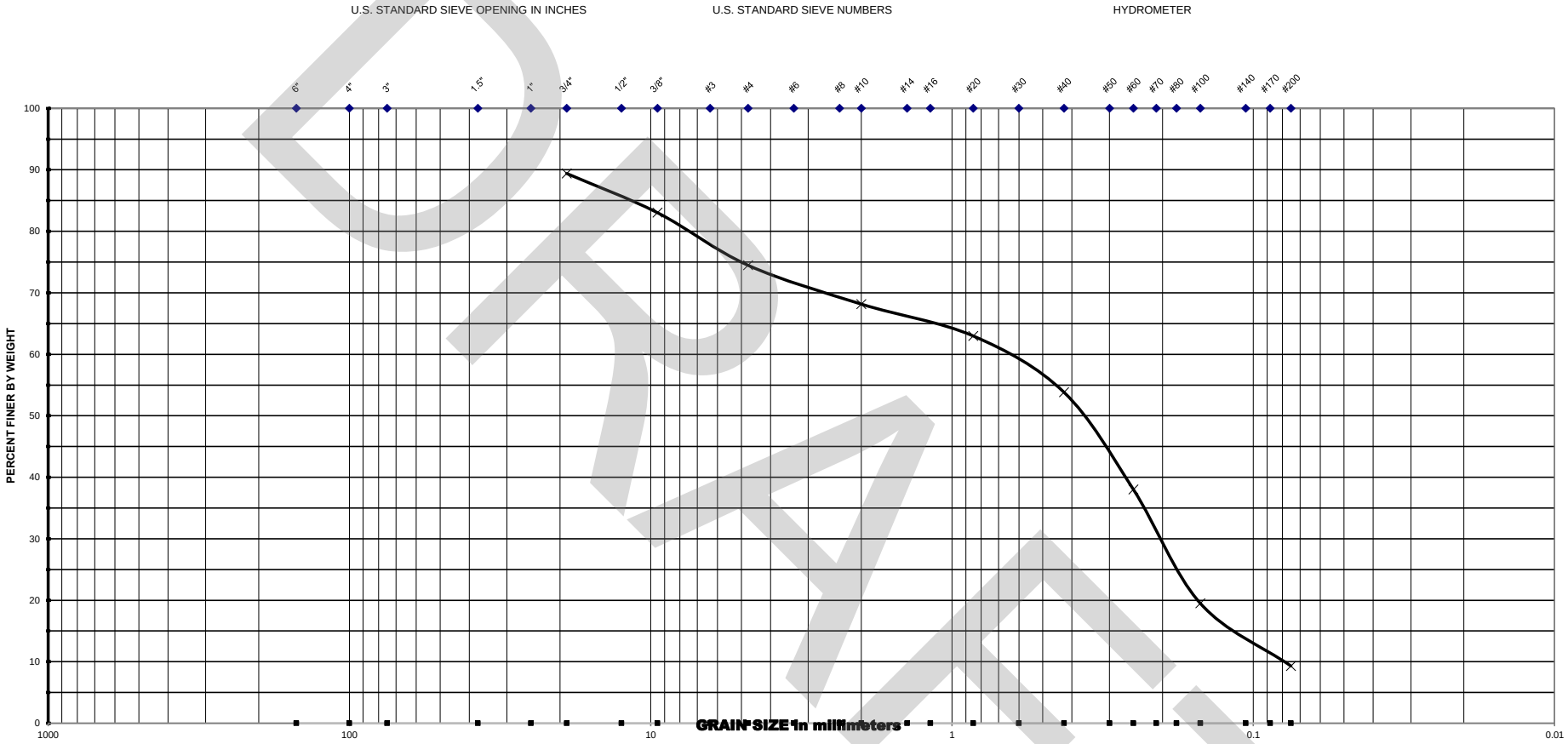
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-109	6.0 - 8.0	A-2-4	25.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.3
#4	97.2
#10	95.0
#20	92.1
#40	79.5
#60	45.9
#100	24.4
#200	15.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

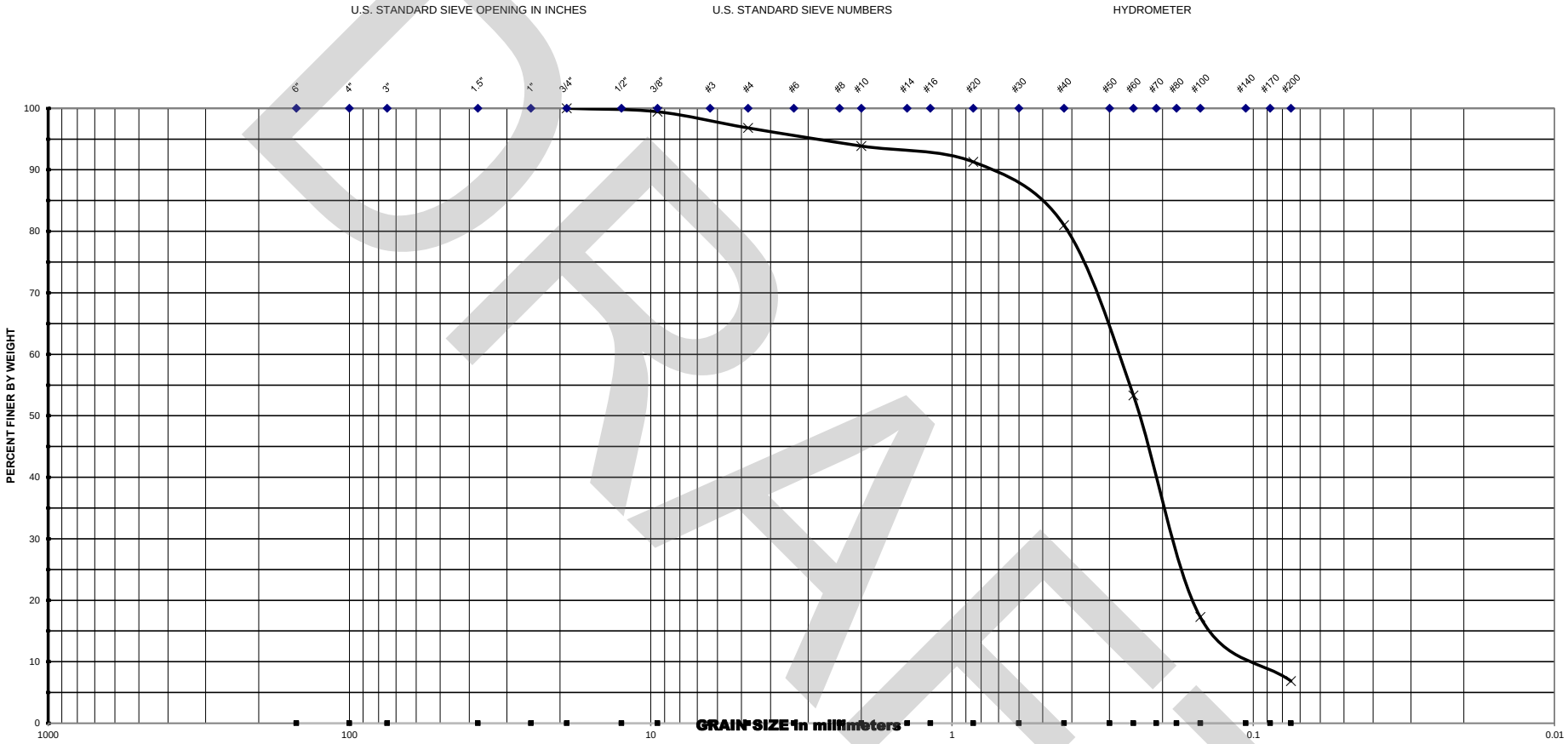
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-110	2.0 - 4.0	A-3	14.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	89.4
3/8"	83.0
#4	74.5
#10	68.2
#20	63.0
#40	53.8
#60	38.0
#100	19.5
#200	9.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

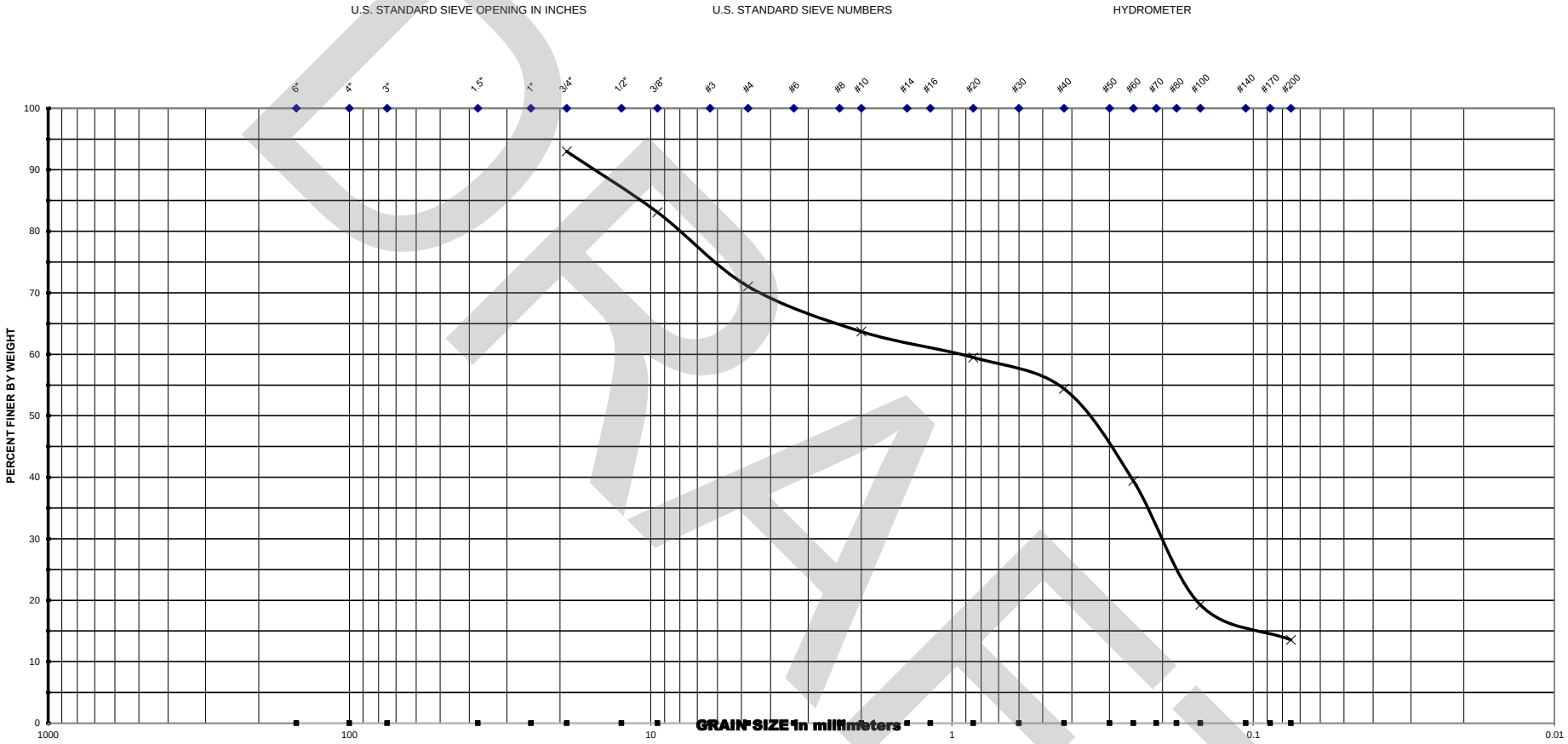
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-110	6.0 - 8.0	A-3	9.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.4
#4	96.8
#10	93.9
#20	91.3
#40	81.0
#60	53.3
#100	17.3
#200	6.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

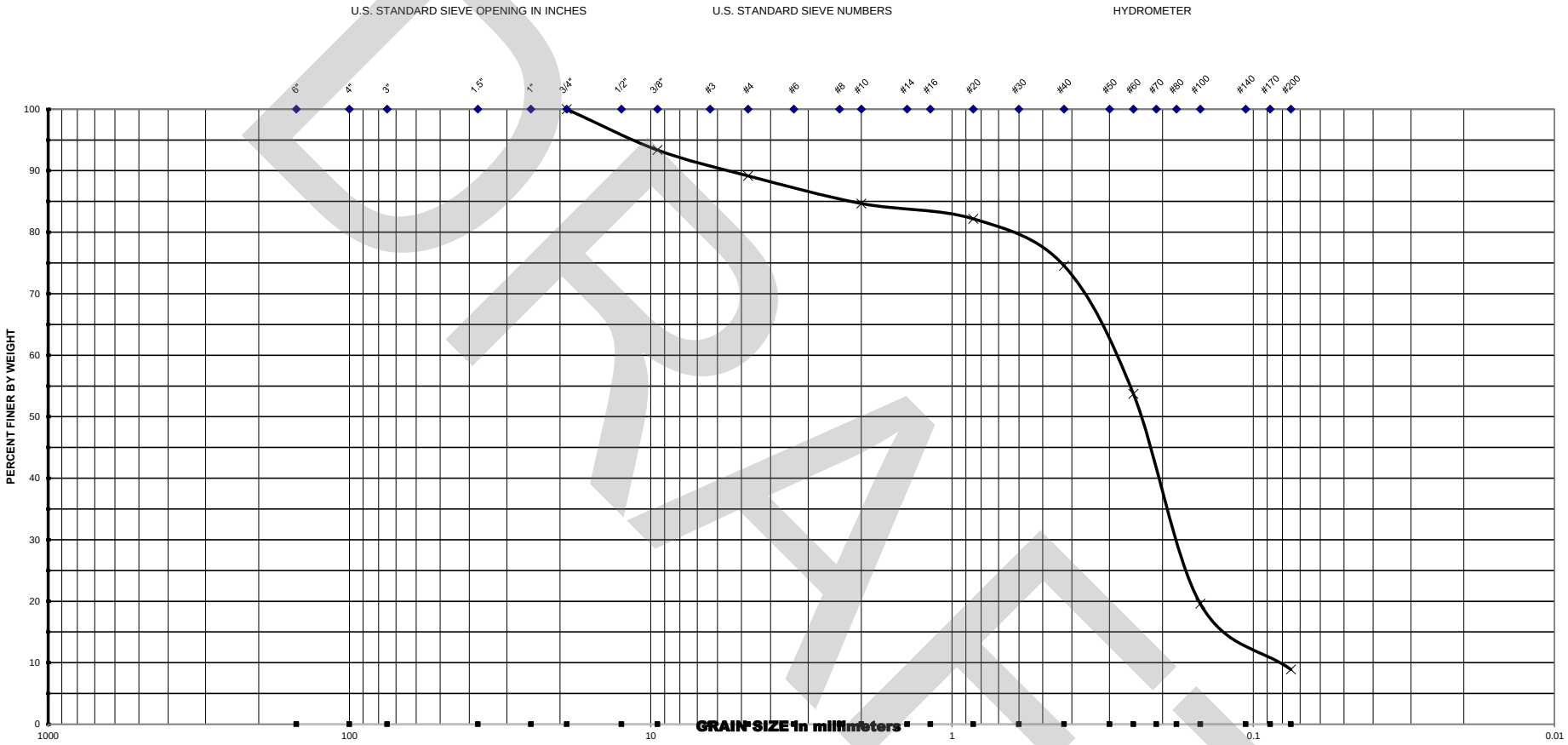
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-201A	6.0 - 8.0	A-2-4	14.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	93.0
3/8"	83.1
#4	71.0
#10	63.7
#20	59.5
#40	54.4
#60	39.4
#100	19.3
#200	13.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

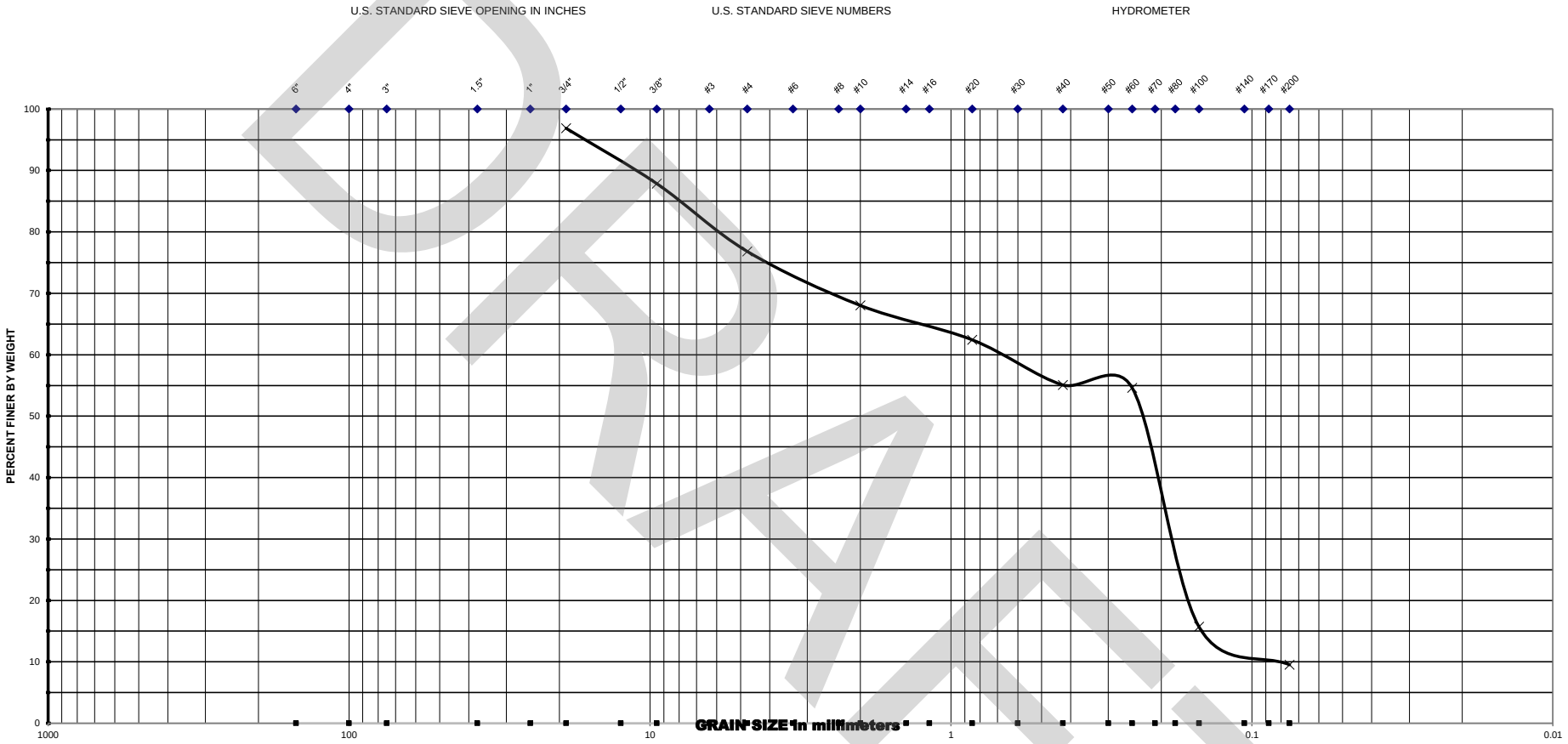
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-201A	8.0 - 10.0	A-3	19.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	93.4
#4	89.2
#10	84.7
#20	82.2
#40	74.6
#60	53.7
#100	19.6
#200	8.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

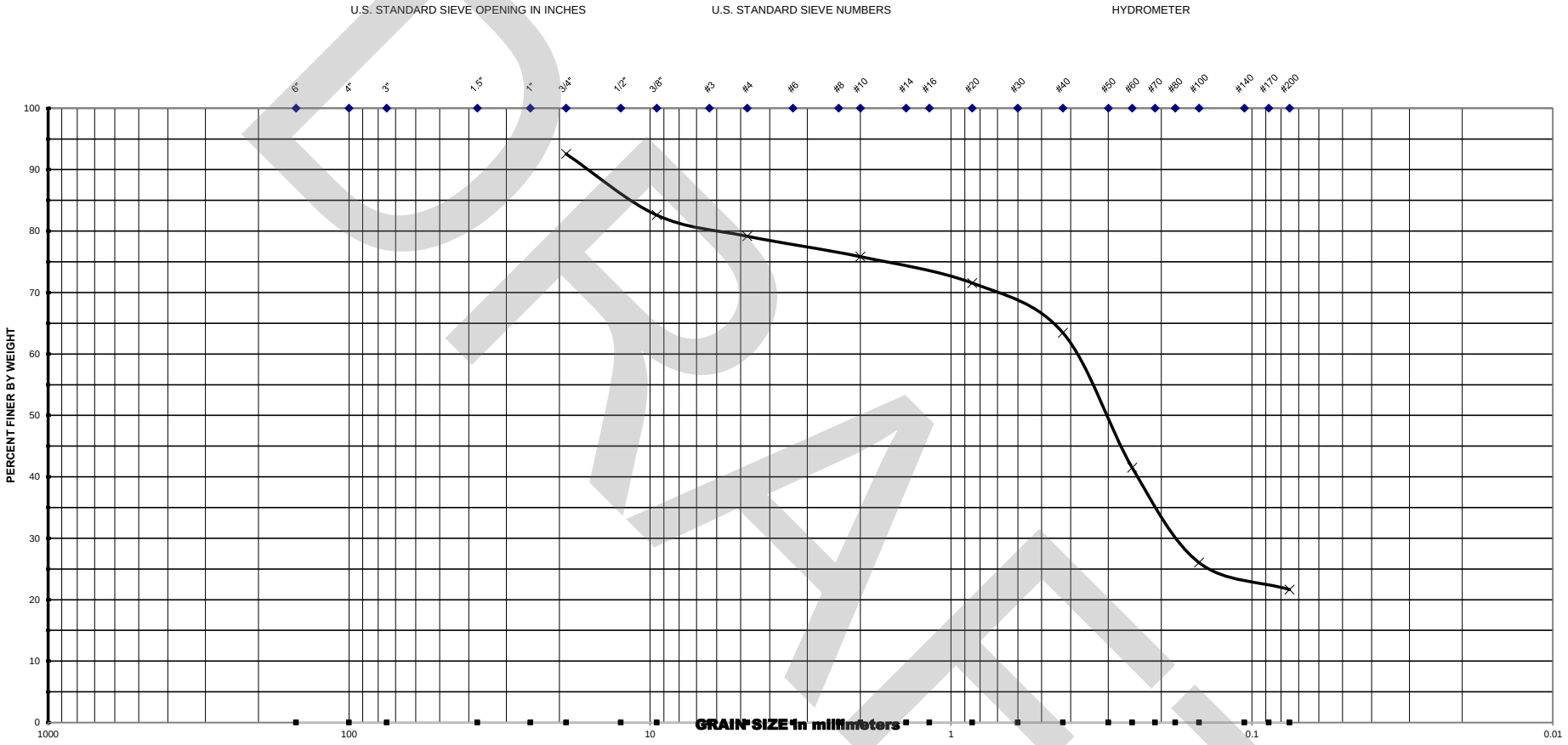
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-201B	6.0 - 8.0	A-3	13.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	96.9
3/8"	87.9
#4	76.8
#10	68.0
#20	62.4
#40	55.1
#60	54.6
#100	15.7
#200	9.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

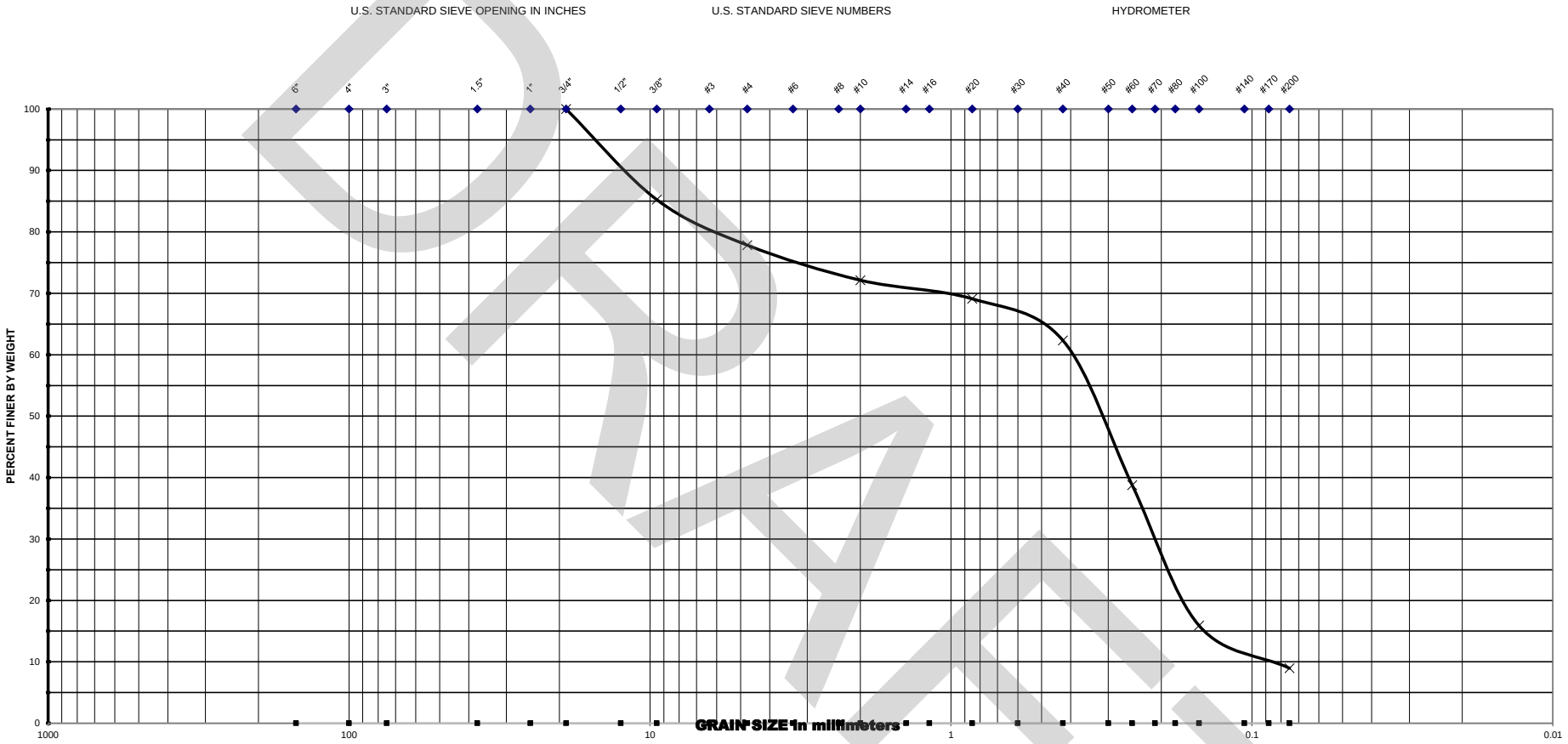
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-201	0.0 - 2.0	A-2-4	14.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	92.6
3/8"	82.6
#4	79.2
#10	75.8
#20	71.5
#40	63.5
#60	41.5
#100	26.0
#200	21.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

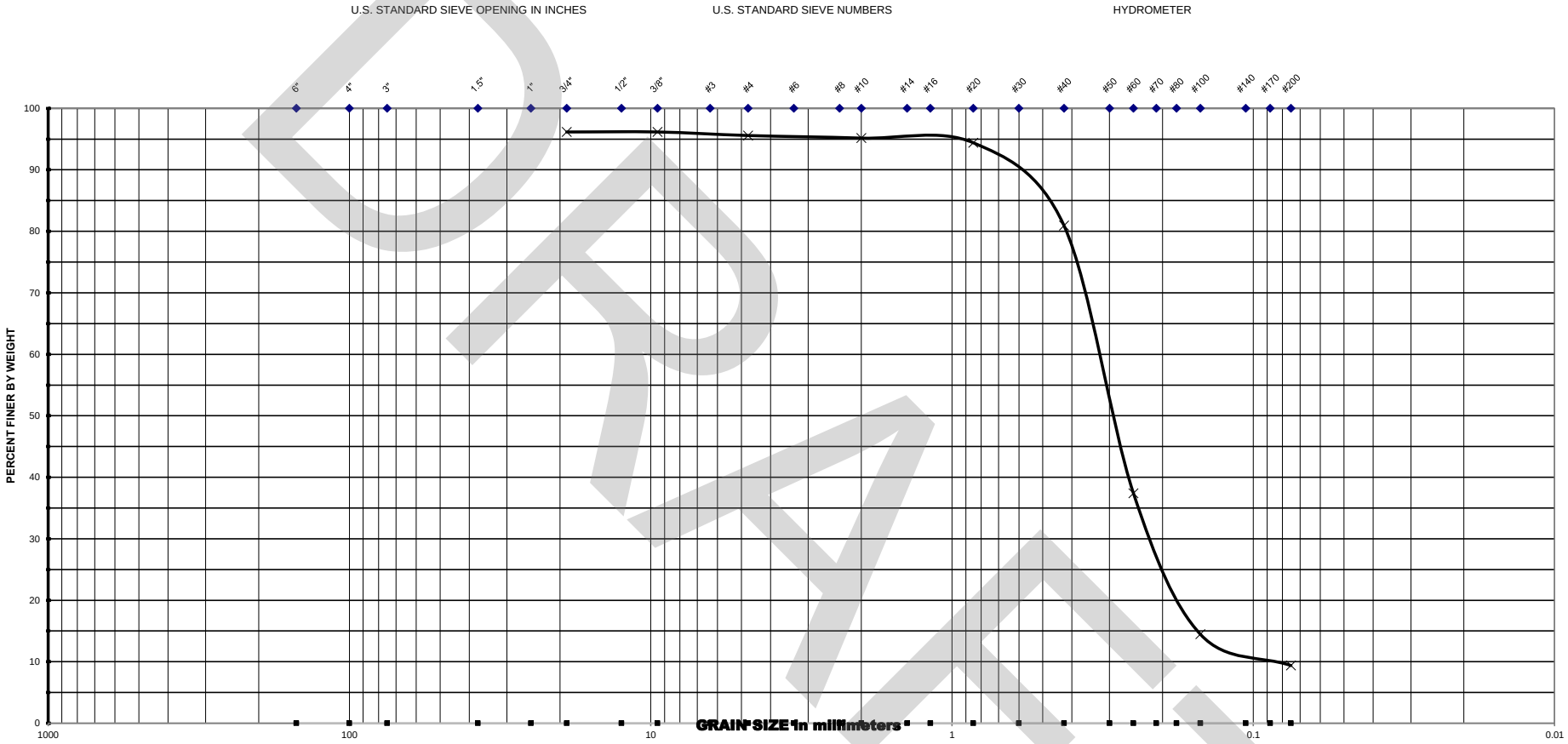
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-202	8.0 - 10.0	A-3	13.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	85.3
#4	77.8
#10	72.1
#20	69.1
#40	62.3
#60	38.8
#100	15.9
#200	9.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

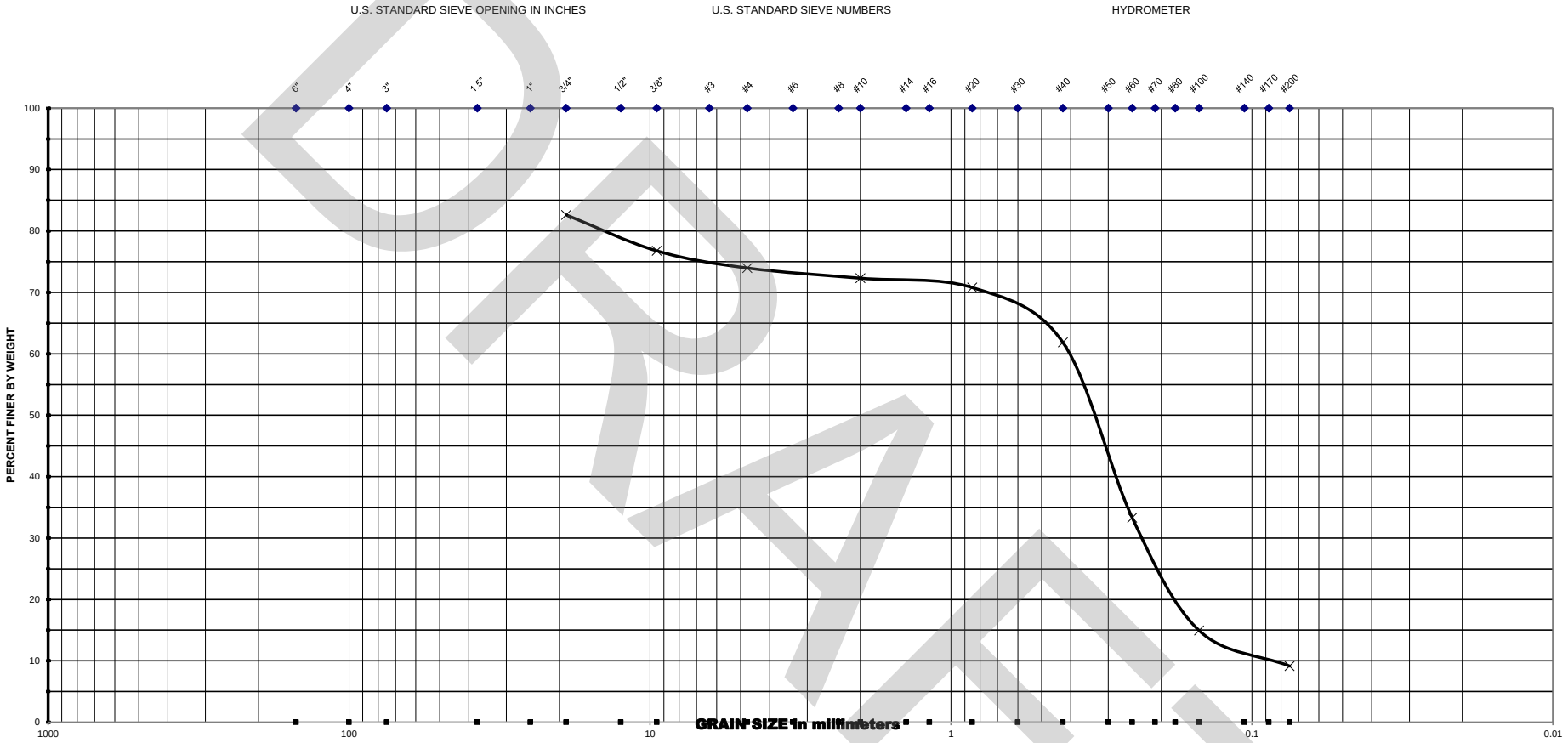
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-204	4.0 - 6.0	A-3	28.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	96.2
3/8"	96.2
#4	95.6
#10	95.2
#20	94.4
#40	80.9
#60	37.4
#100	14.5
#200	9.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

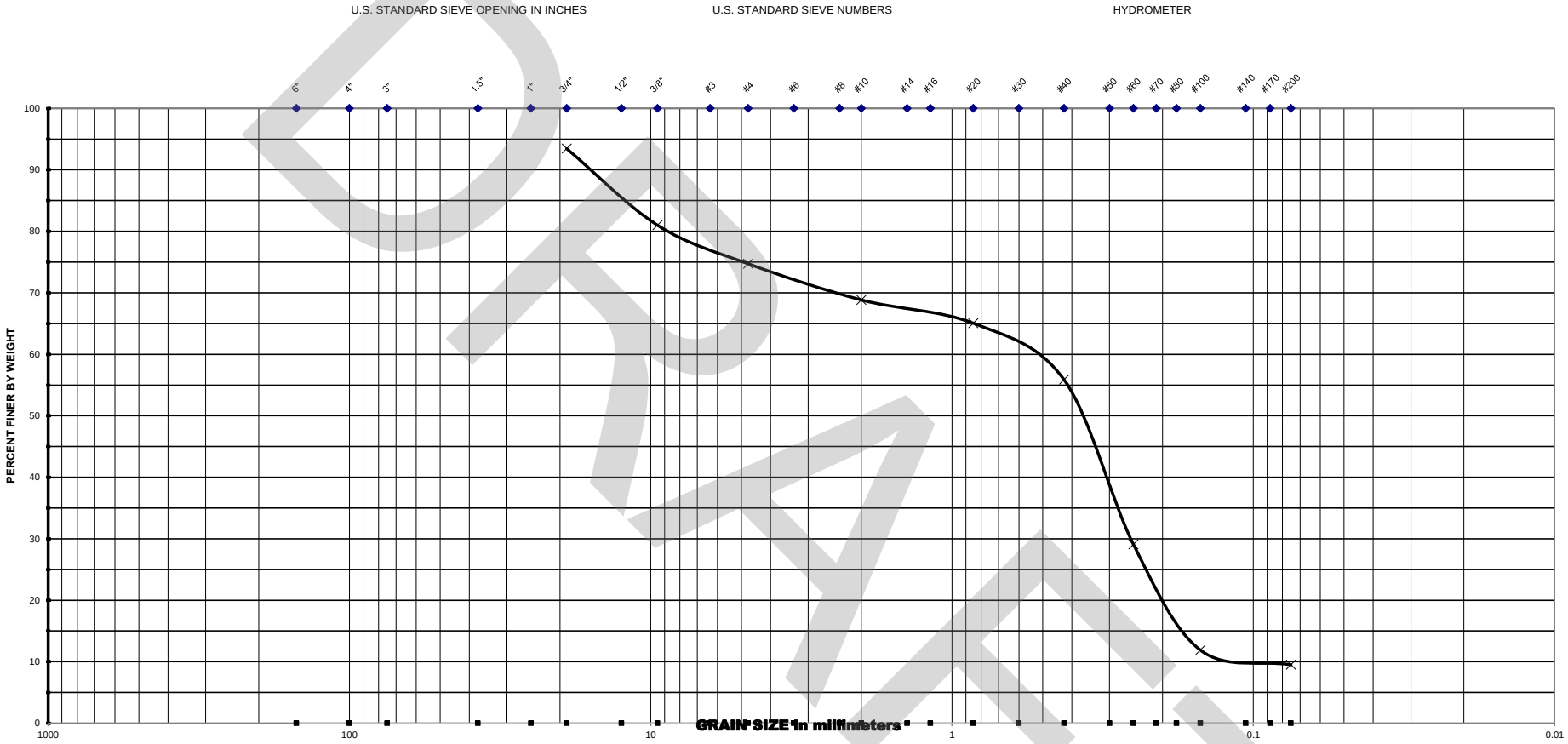
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-204	8.0 - 10.0	A-3	9.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	82.6
3/8"	76.8
#4	74.0
#10	72.3
#20	70.8
#40	61.9
#60	33.3
#100	15.0
#200	9.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

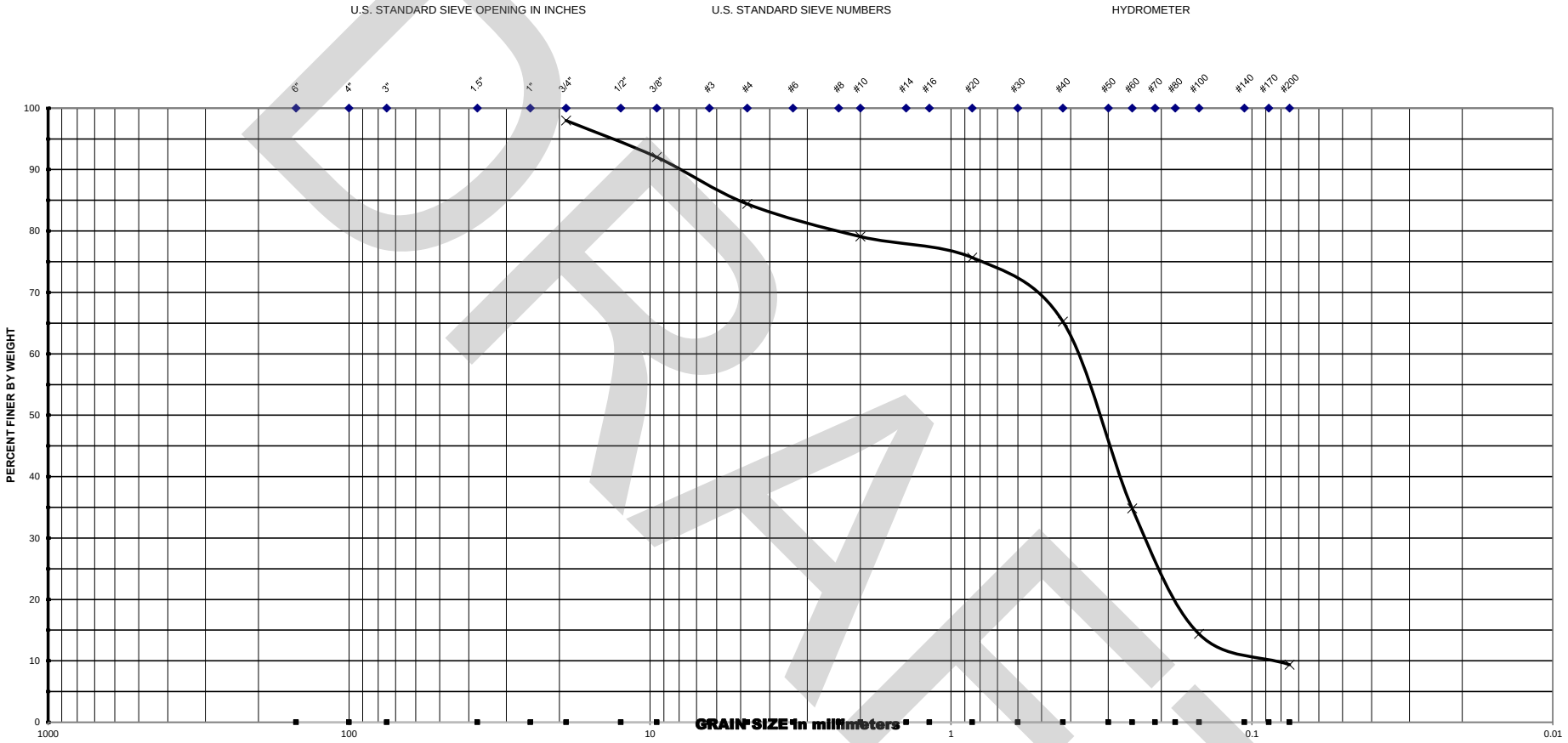
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-205	6.0 - 8.0	A-3	13.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	93.4
3/8"	81.0
#4	74.7
#10	68.8
#20	65.1
#40	55.9
#60	29.1
#100	11.9
#200	9.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

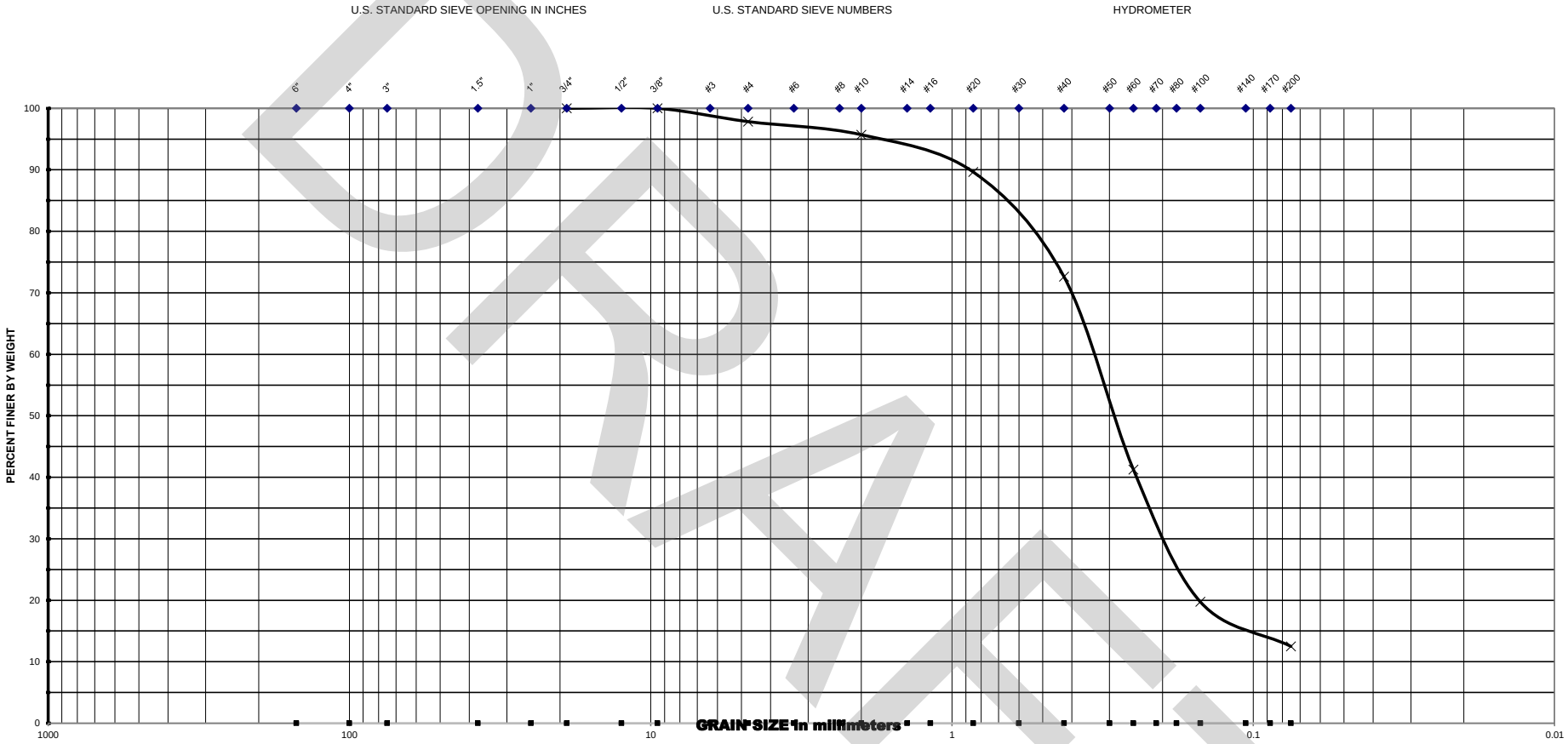
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-205	8.0 - 10.0	A-3	14.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	98.0
3/8"	92.0
#4	84.4
#10	79.1
#20	75.7
#40	65.3
#60	34.8
#100	14.4
#200	9.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

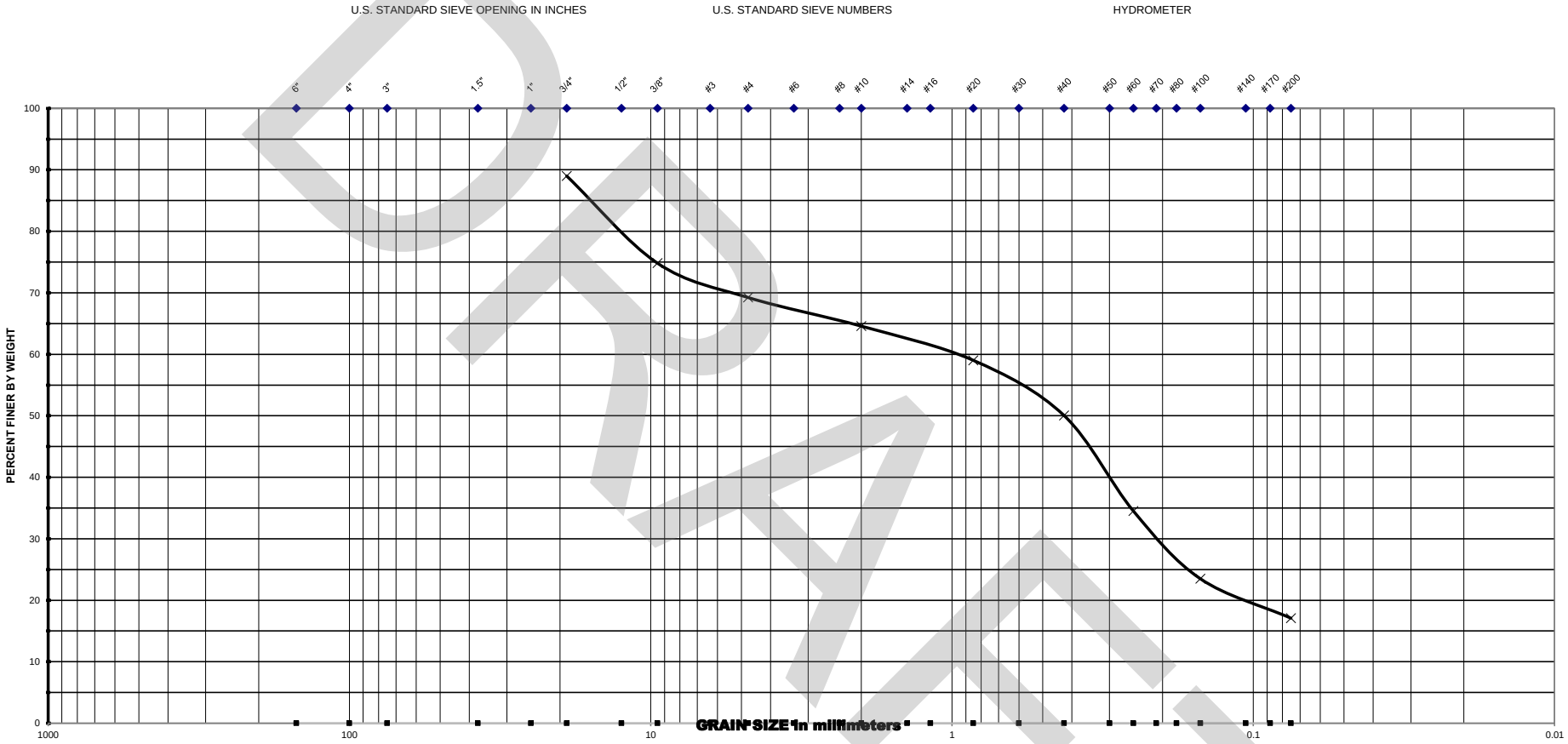
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-206	4.0 - 6.0	A-2-4	38.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	97.8
#10	95.7
#20	89.6
#40	72.6
#60	41.2
#100	19.8
#200	12.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

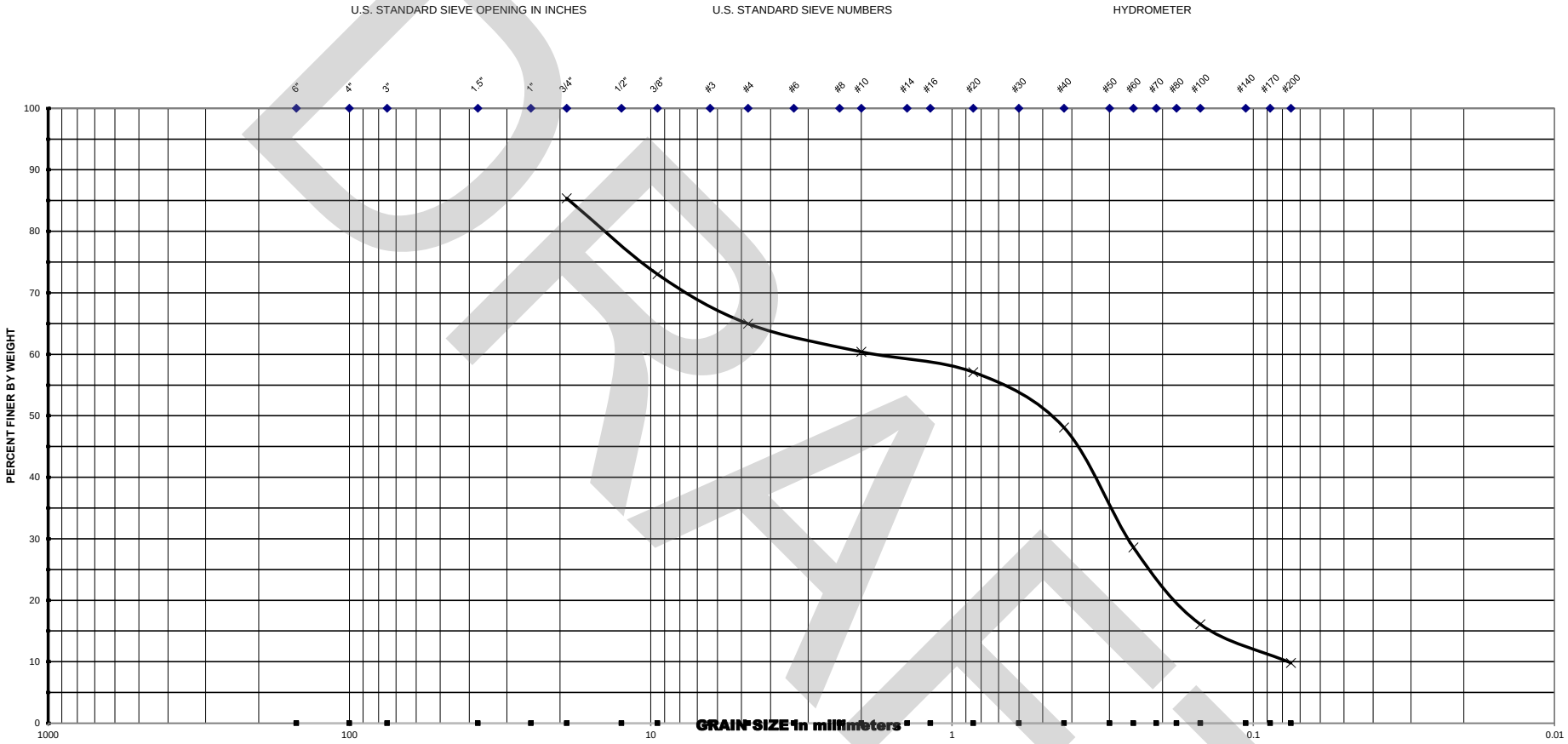
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-206	6.0 - 8.0	A-1-b	24.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	89.0
3/8"	74.8
#4	69.2
#10	64.6
#20	59.0
#40	50.1
#60	34.5
#100	23.5
#200	17.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

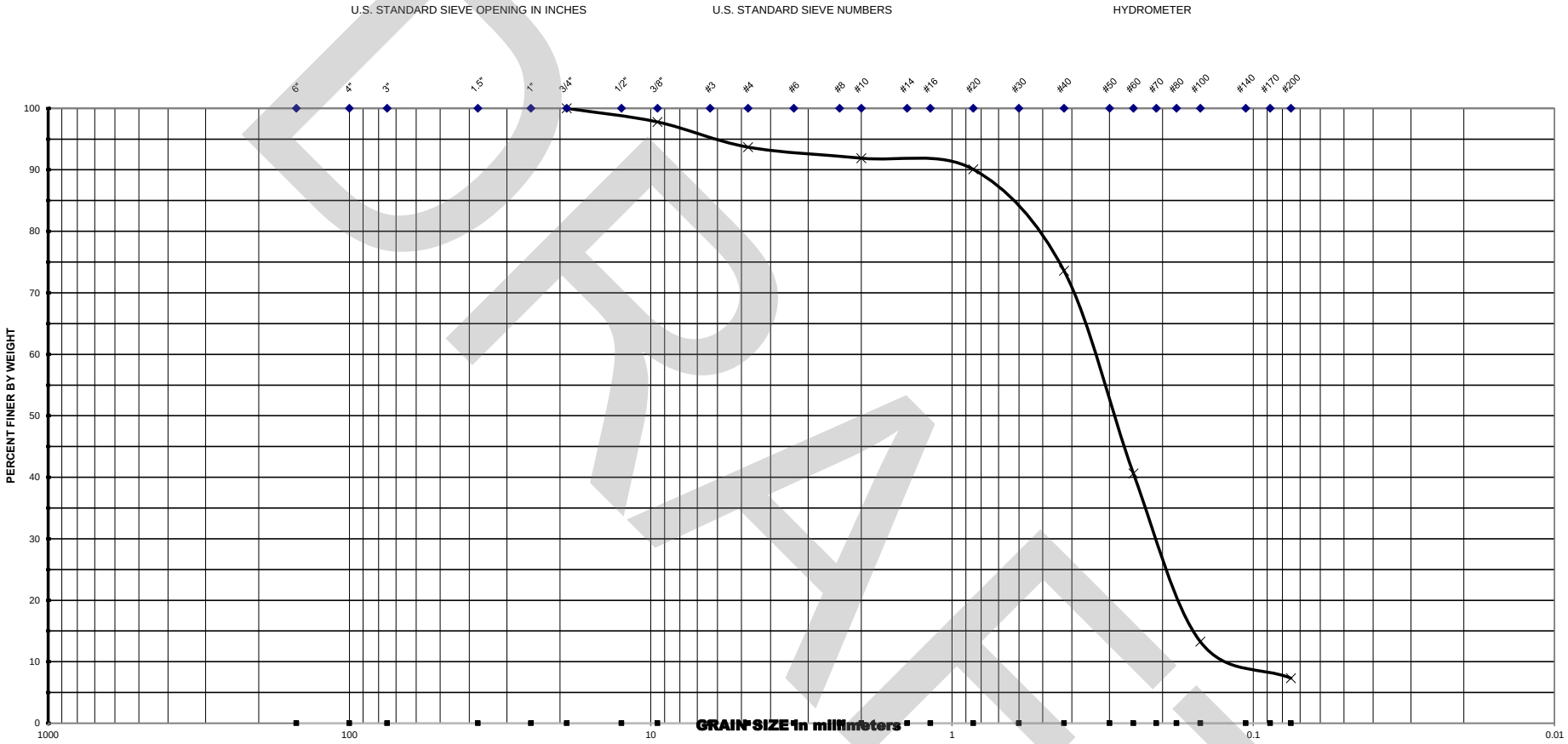
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-206	8.0 - 10.0	A-1-b	20.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	85.4
3/8"	73.0
#4	65.0
#10	60.4
#20	57.1
#40	48.1
#60	28.6
#100	16.1
#200	9.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

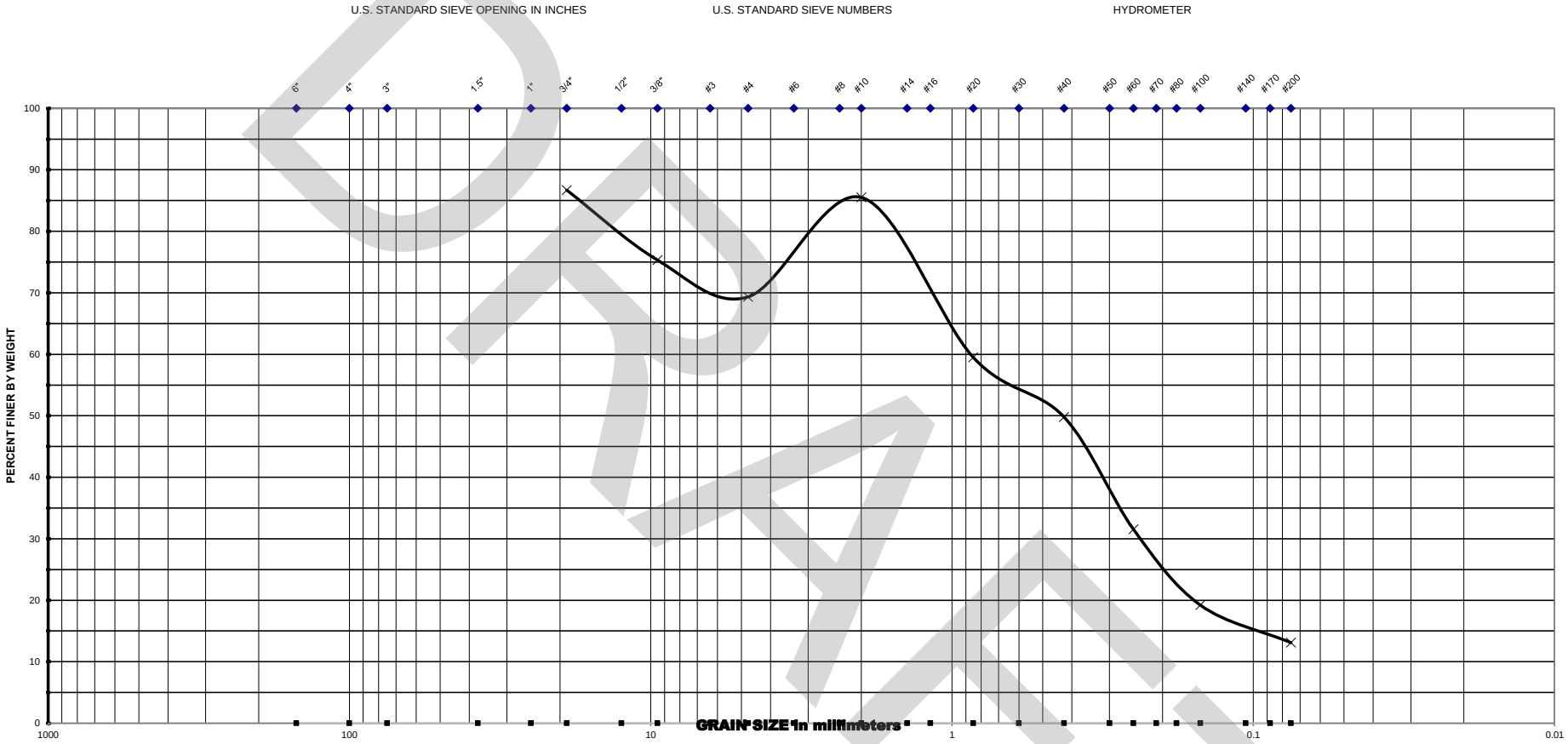
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-207	8.0 - 10.0	A-3	14.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	97.8
#4	93.7
#10	91.9
#20	90.1
#40	73.6
#60	40.6
#100	13.3
#200	7.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

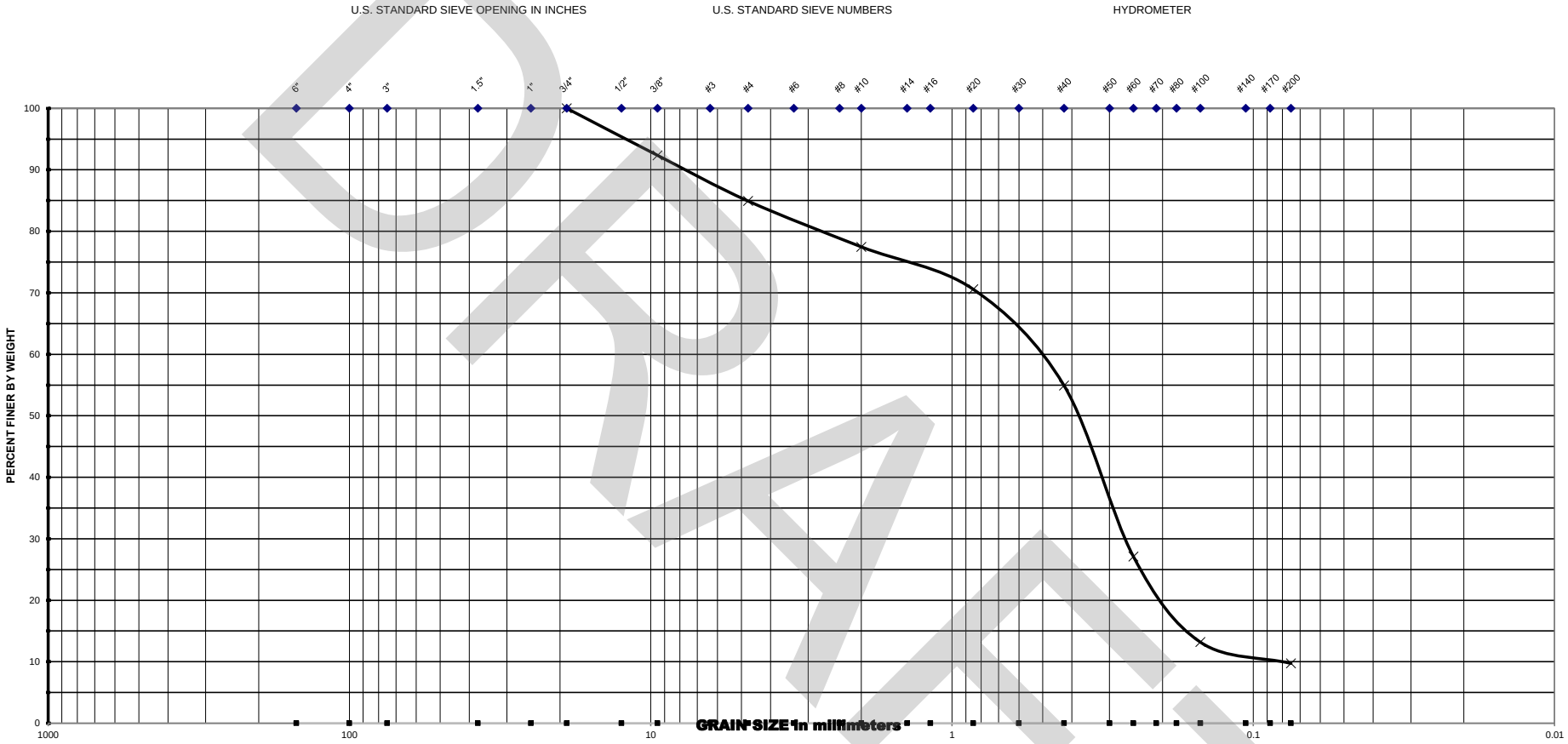
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-208	6.0 - 8.0	A-1-b	13.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	86.7
3/8"	75.3
#4	69.3
#10	85.5
#20	59.5
#40	49.8
#60	31.5
#100	19.2
#200	13.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

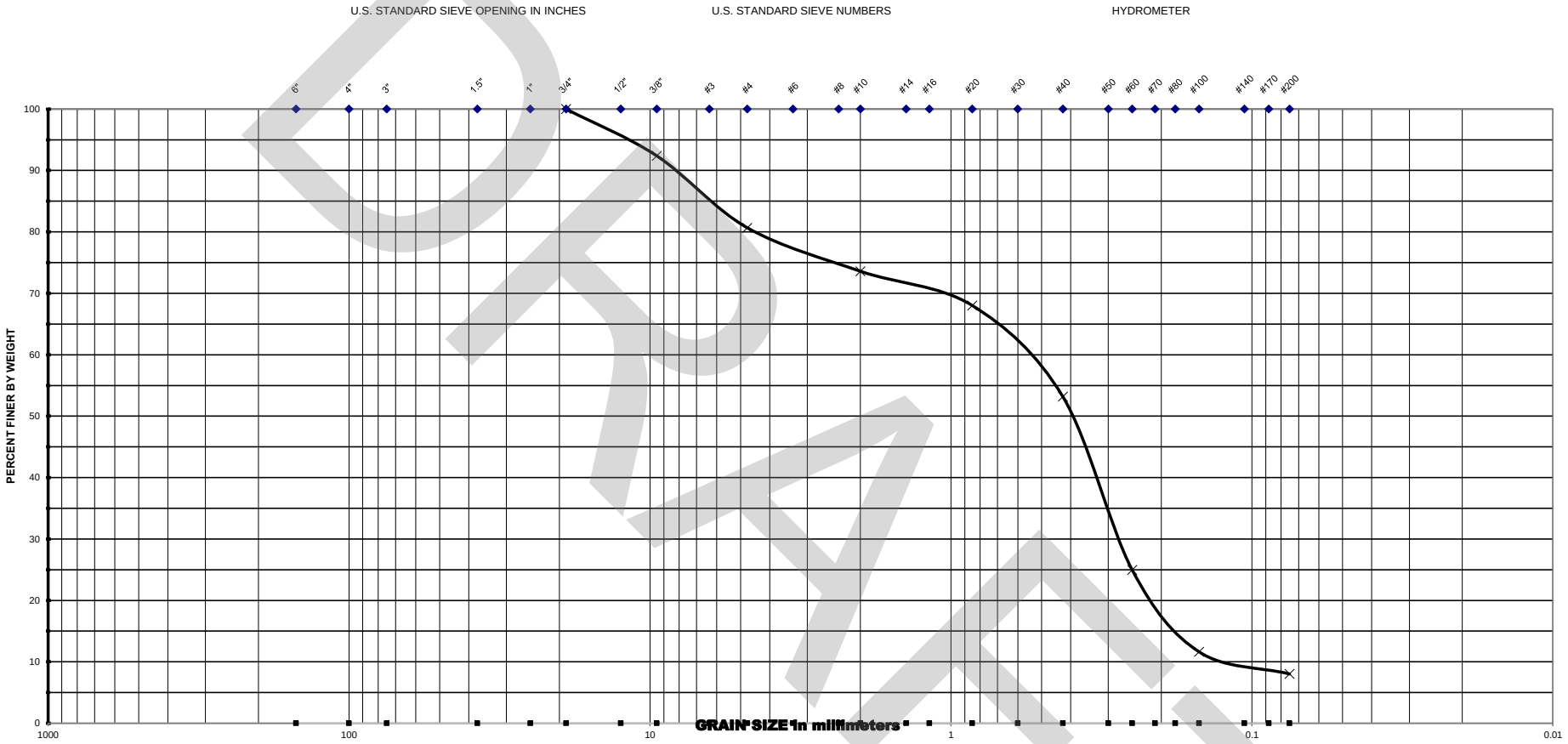
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-208	8.0 - 10.0	A-3	17.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	92.4
#4	84.9
#10	77.5
#20	70.6
#40	54.9
#60	27.1
#100	13.2
#200	9.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

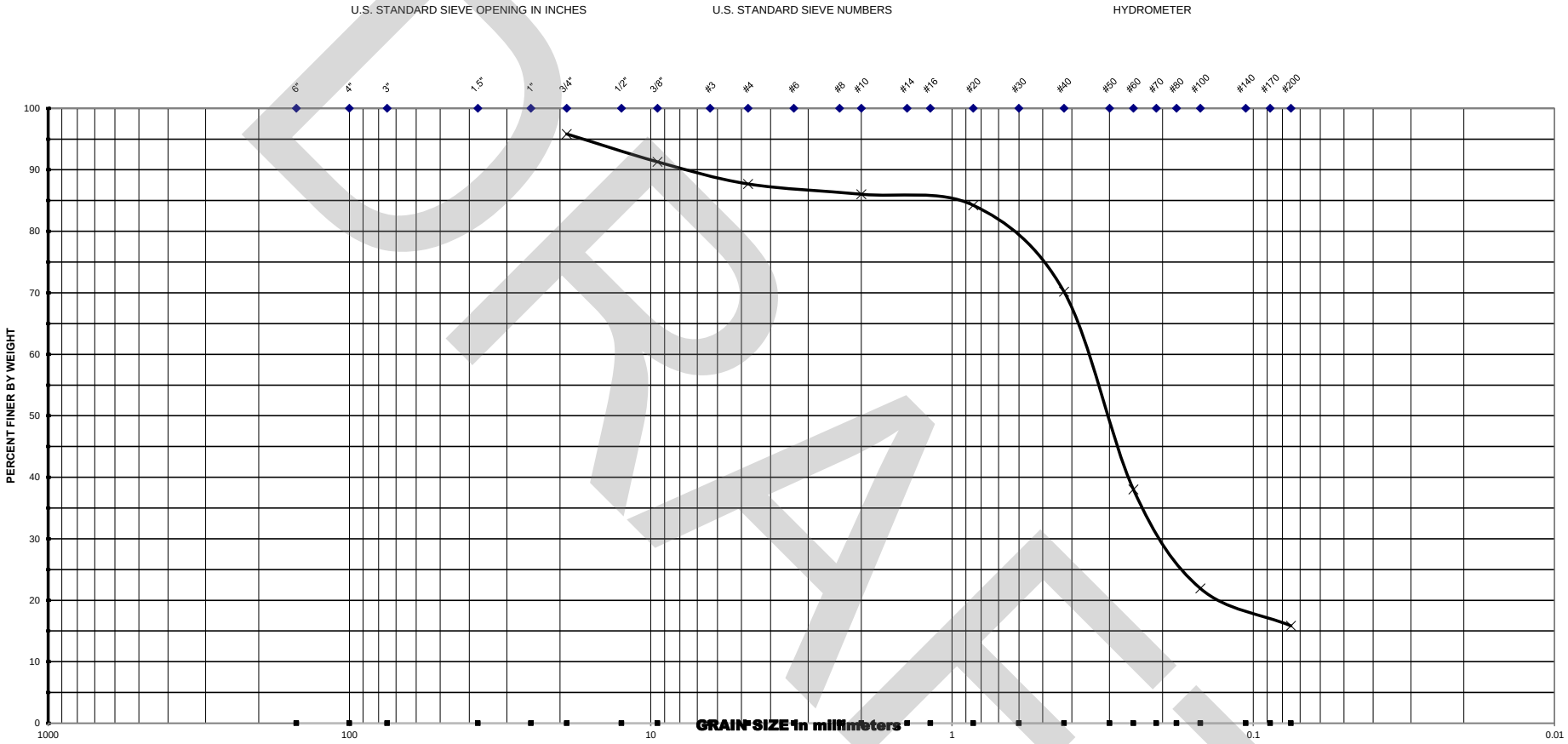
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-209	8.0 - 10.0	A-3	18.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	92.4
#4	80.7
#10	73.6
#20	68.0
#40	53.2
#60	25.0
#100	11.6
#200	8.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

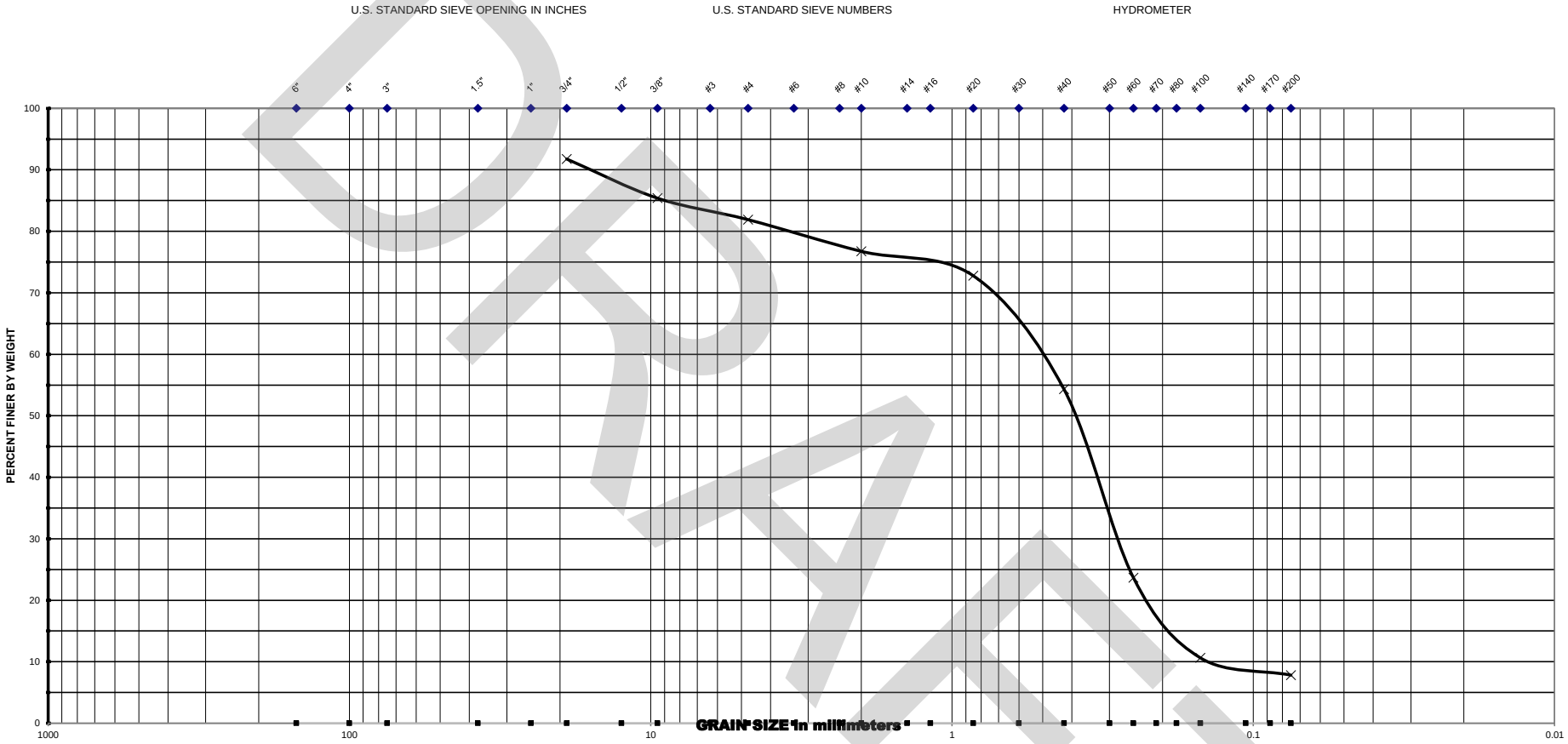
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-210	2.0 - 4.0	A-2-4	20.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	95.8
3/8"	91.3
#4	87.7
#10	86.0
#20	84.2
#40	70.2
#60	38.0
#100	21.9
#200	15.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

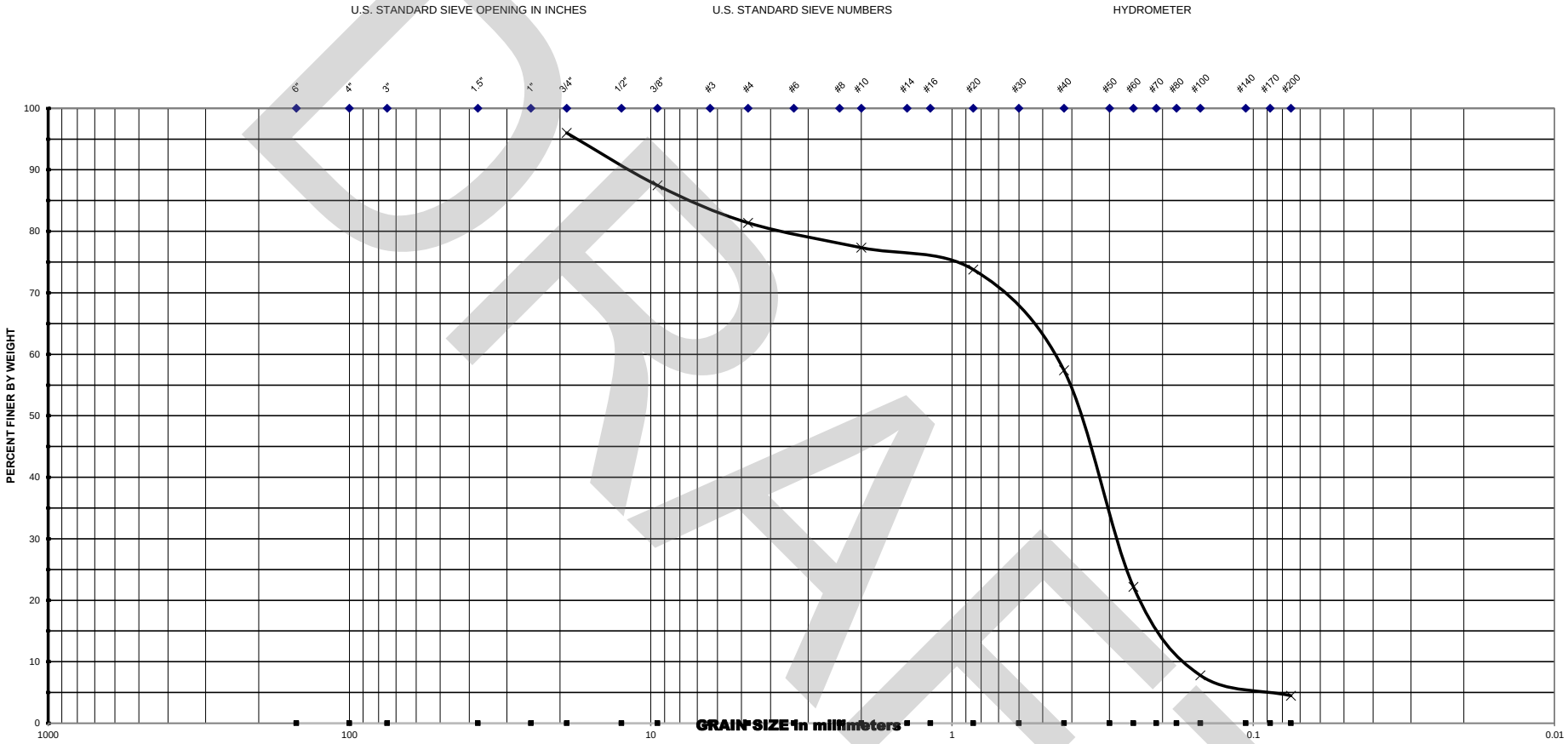
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-210	6.0 - 8.0	A-3	10.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	91.8
3/8"	85.4
#4	81.9
#10	76.7
#20	72.8
#40	54.3
#60	23.7
#100	10.6
#200	7.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

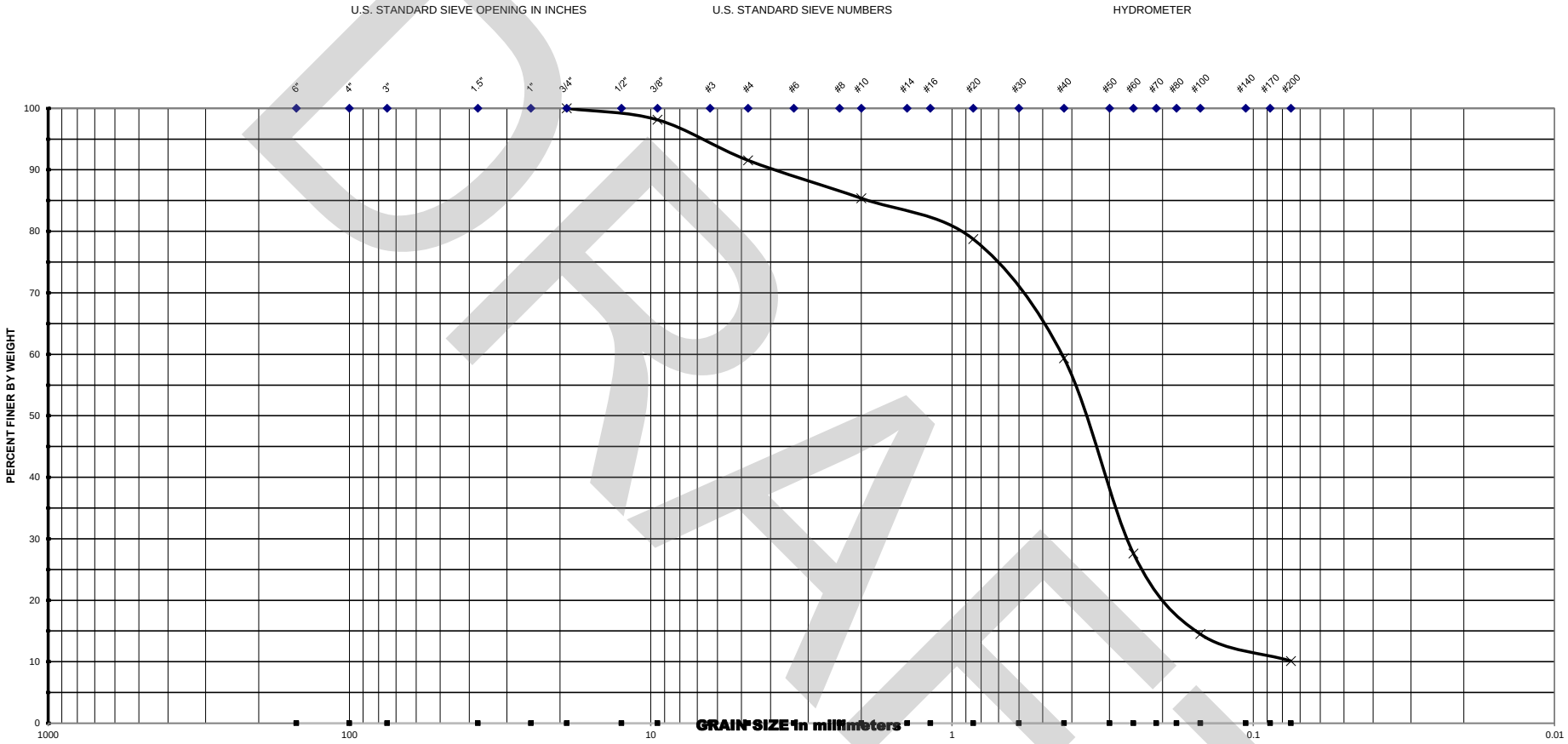
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-211	4.0 - 6.0	A-3	10.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	96.0
3/8"	87.5
#4	81.4
#10	77.3
#20	73.8
#40	57.4
#60	22.2
#100	7.8
#200	4.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

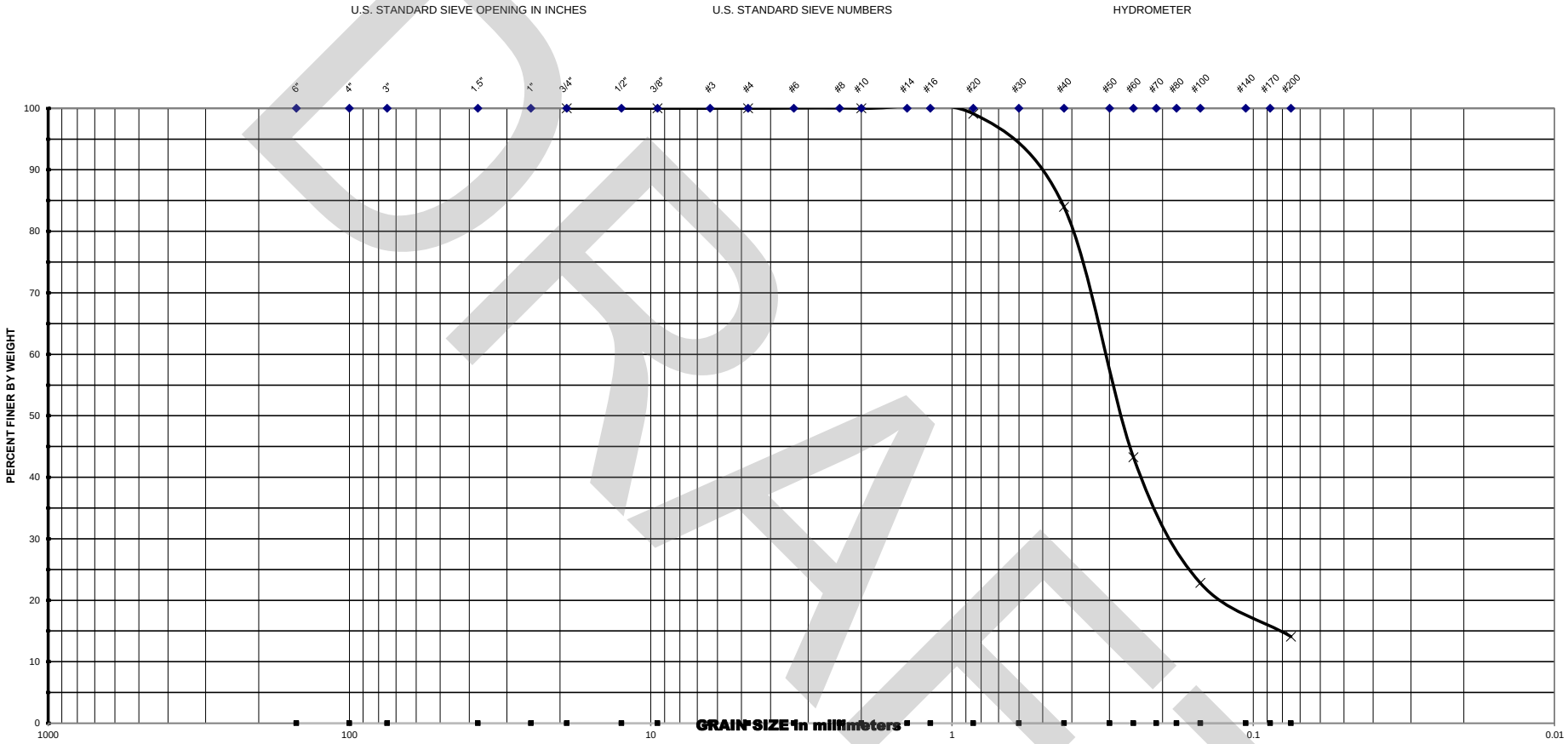
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-212	8.0 - 10.0	A-3	21.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	98.1
#4	91.5
#10	85.4
#20	78.7
#40	59.3
#60	27.6
#100	14.5
#200	10.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

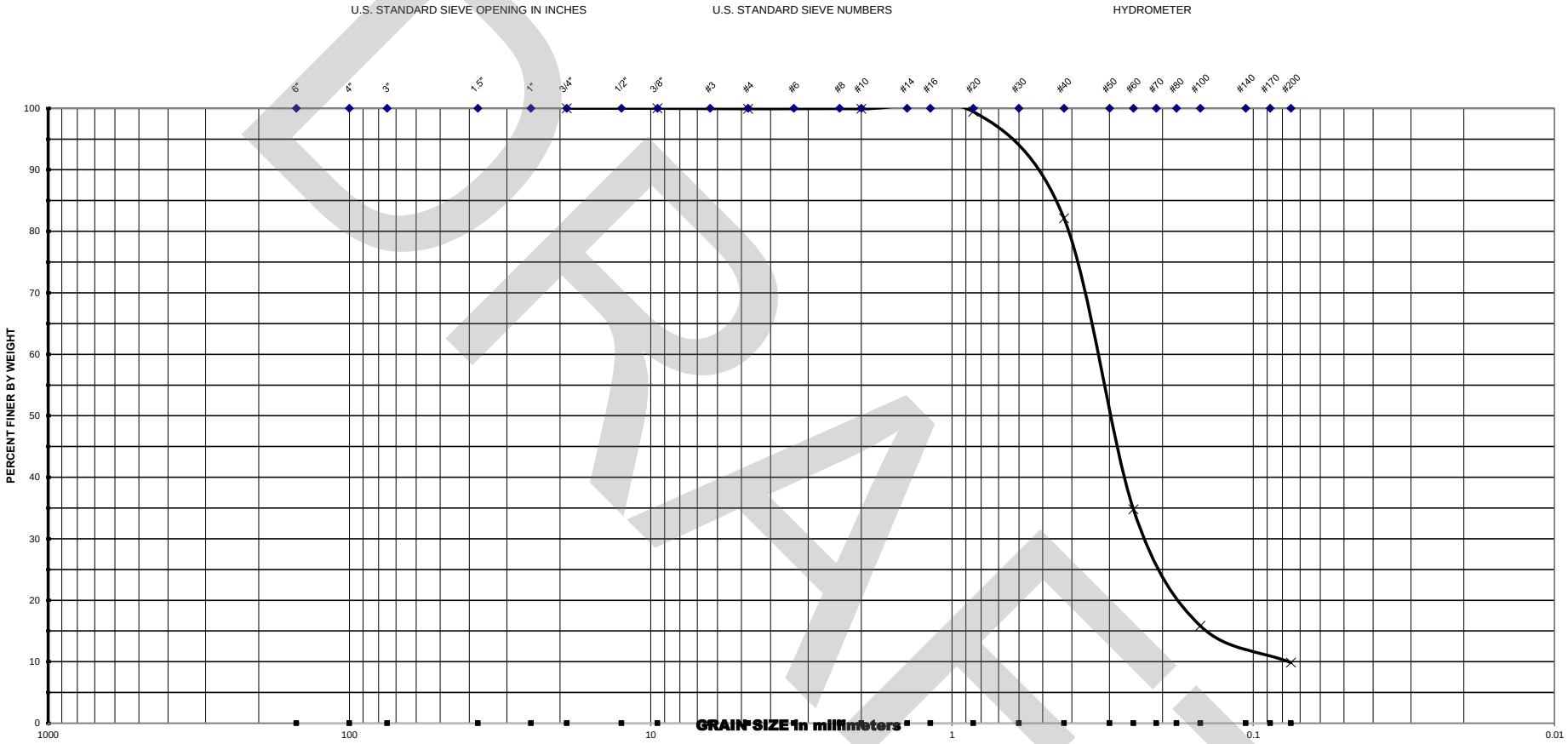
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-213	2.0 - 4.0	A-2-4	15.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	99.1
#40	84.0
#60	43.3
#100	22.8
#200	14.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

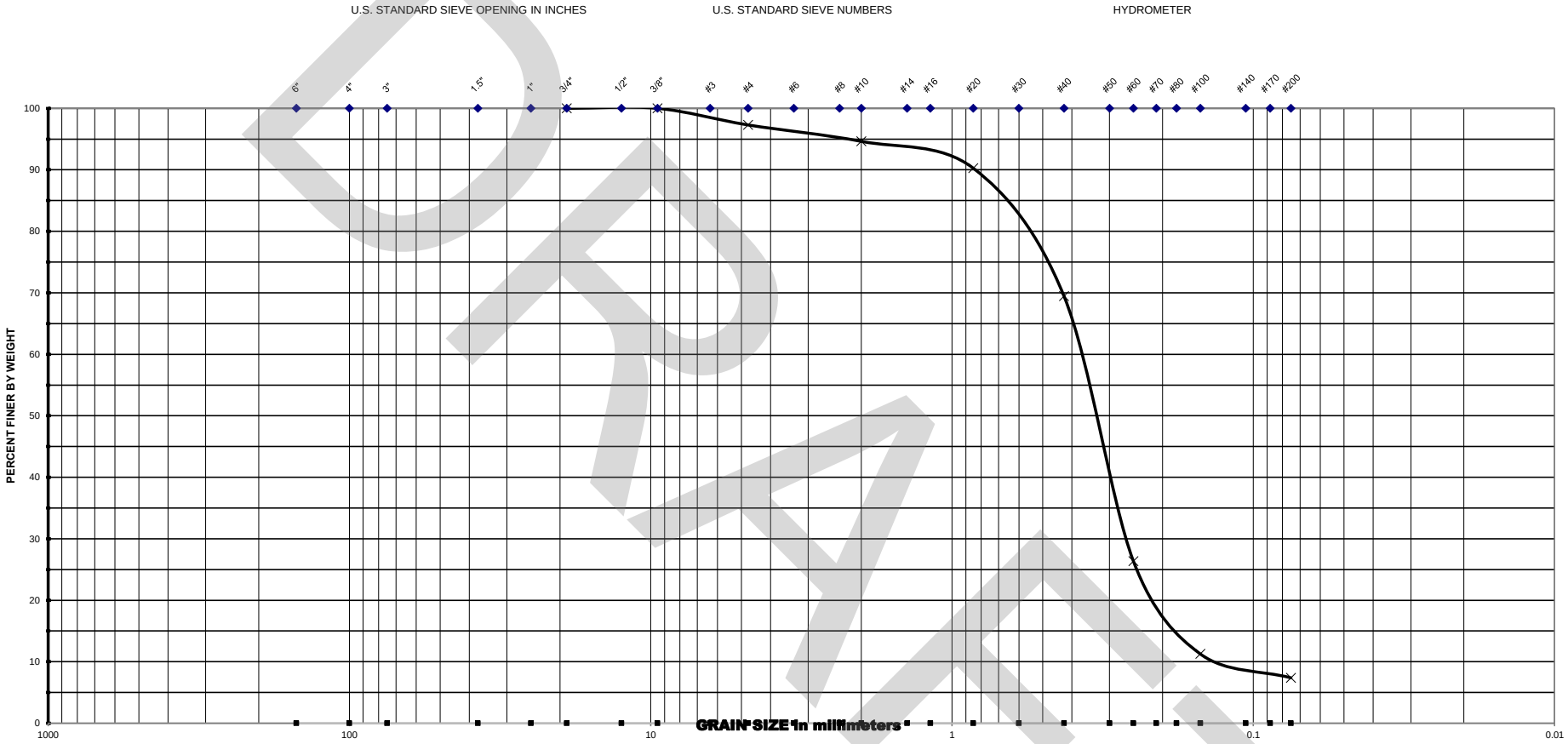
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-213	4.0 - 6.0	A-3	17.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.9
#20	99.4
#40	82.1
#60	34.8
#100	15.8
#200	9.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

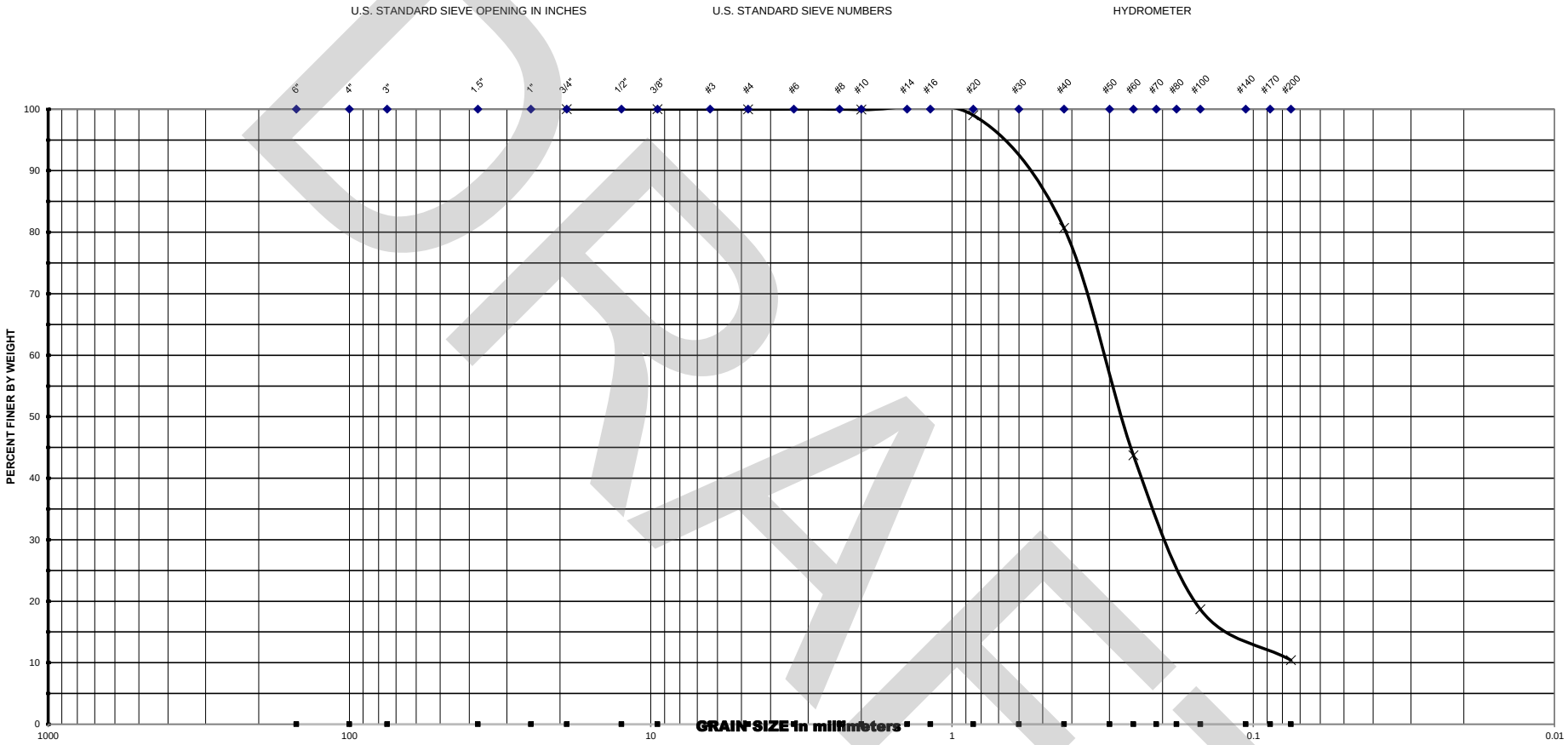
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-213	8.0 - 10.0	A-3	17.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	97.3
#10	94.6
#20	90.3
#40	69.5
#60	26.3
#100	11.3
#200	7.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

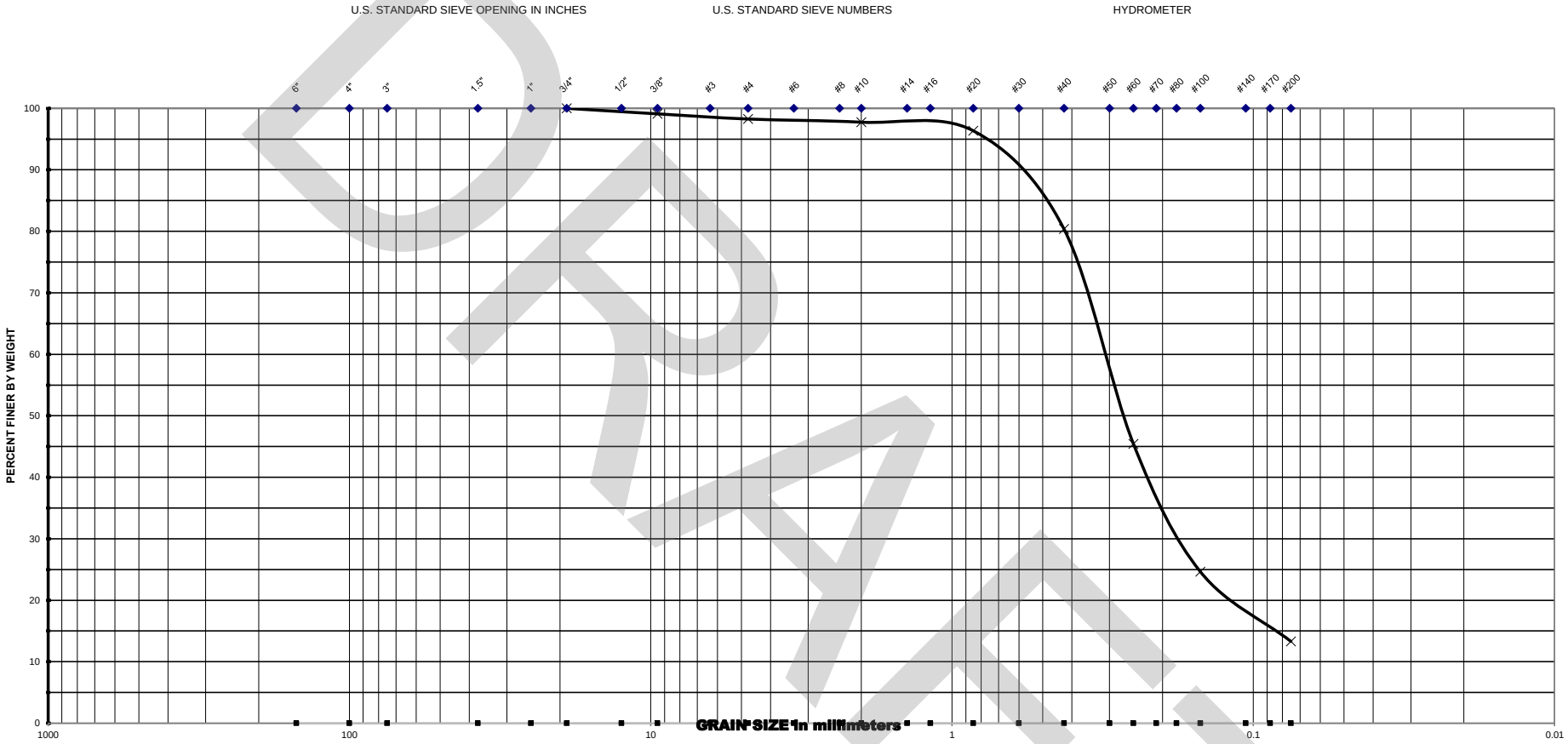
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-214	6.0 - 8.0	A-3	15.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	99.9
#20	99.0
#40	80.7
#60	43.7
#100	18.7
#200	10.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

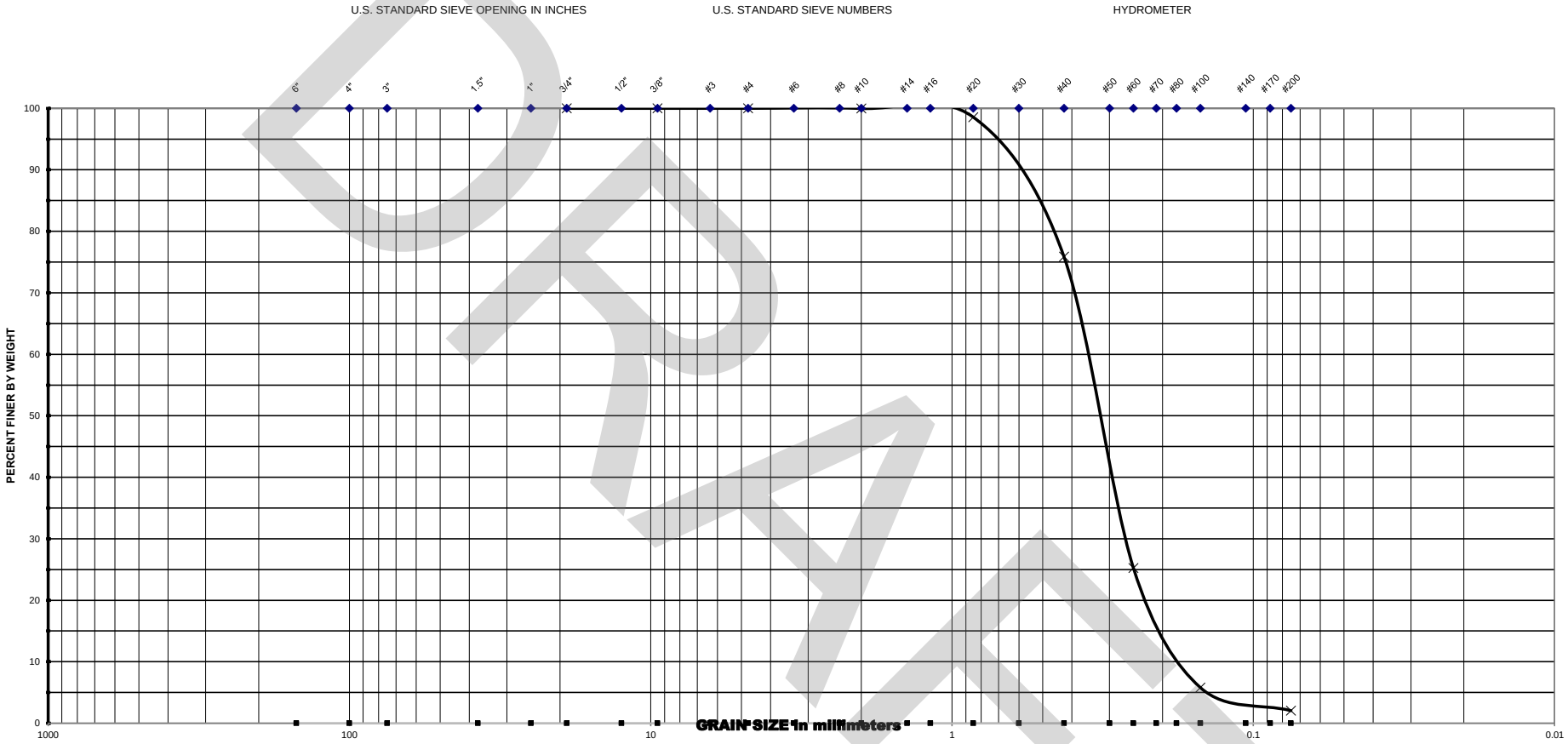
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-214	8.0 - 10.0	A-2-4	17.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.1
#4	98.3
#10	97.7
#20	96.3
#40	80.4
#60	45.4
#100	24.7
#200	13.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

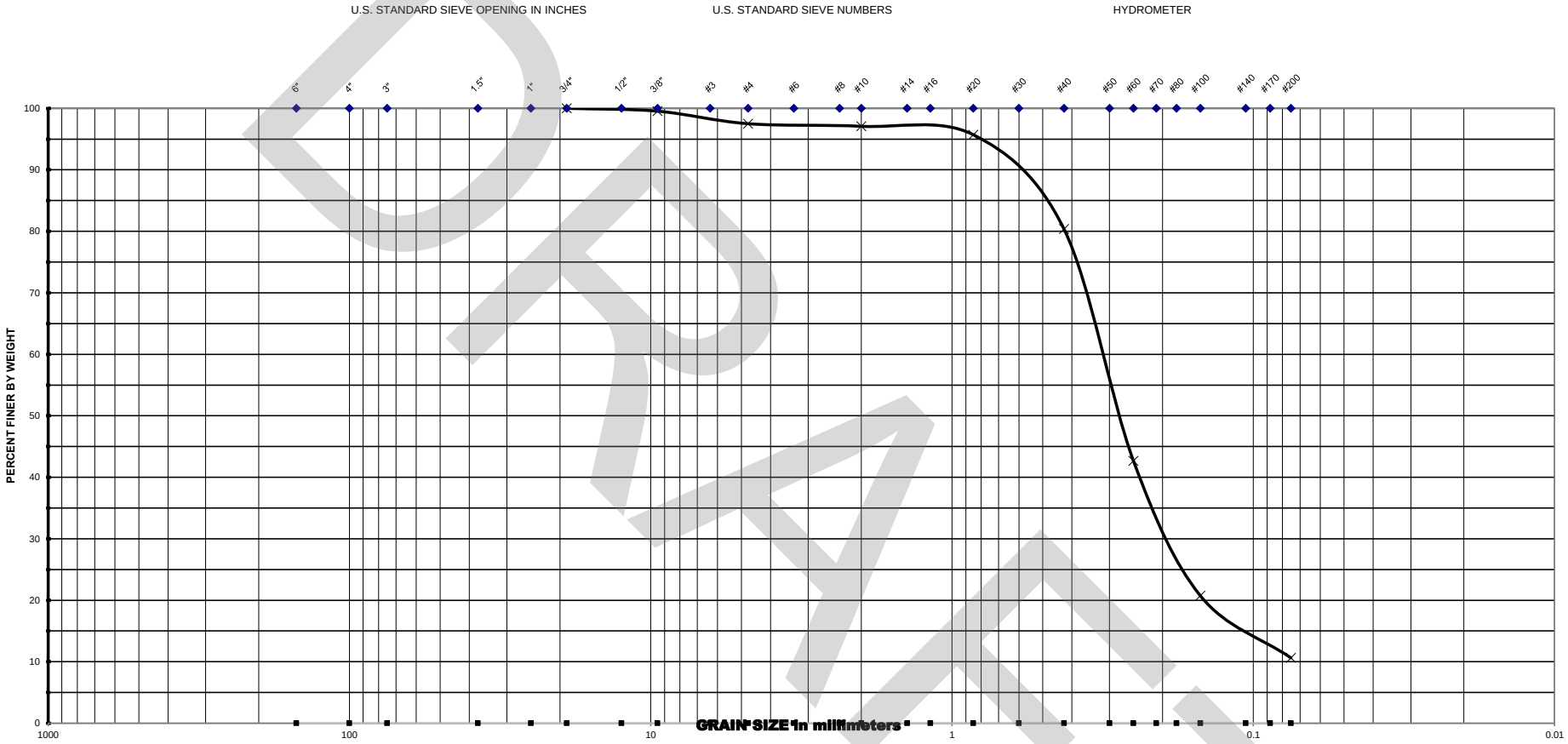
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-215	2.0 - 4.0	A-3	0.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	98.6
#40	75.9
#60	25.2
#100	5.8
#200	2.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

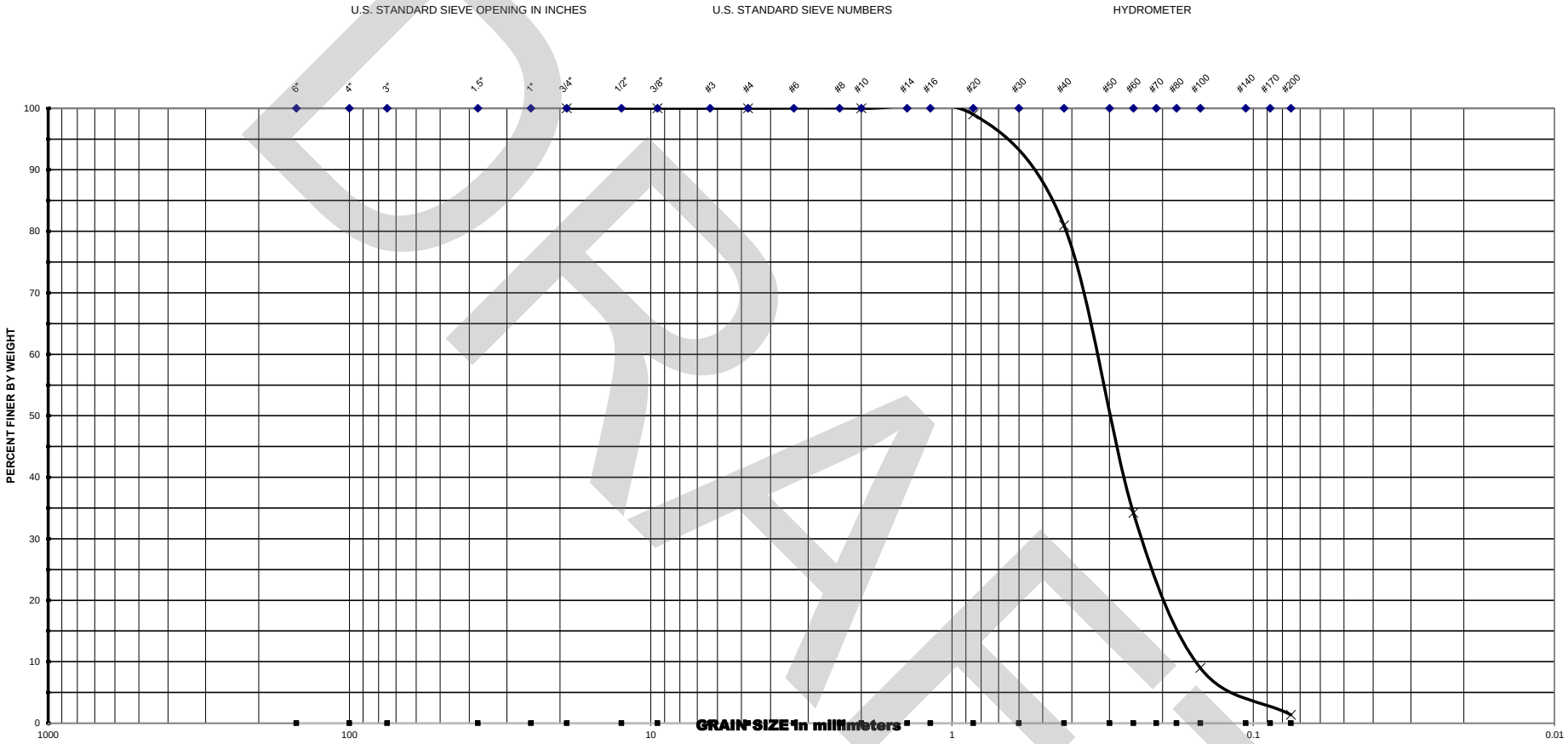
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-215	8.0 - 10.0	A-2-4	17.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.5
#4	97.5
#10	97.1
#20	95.7
#40	80.4
#60	42.7
#100	20.8
#200	10.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

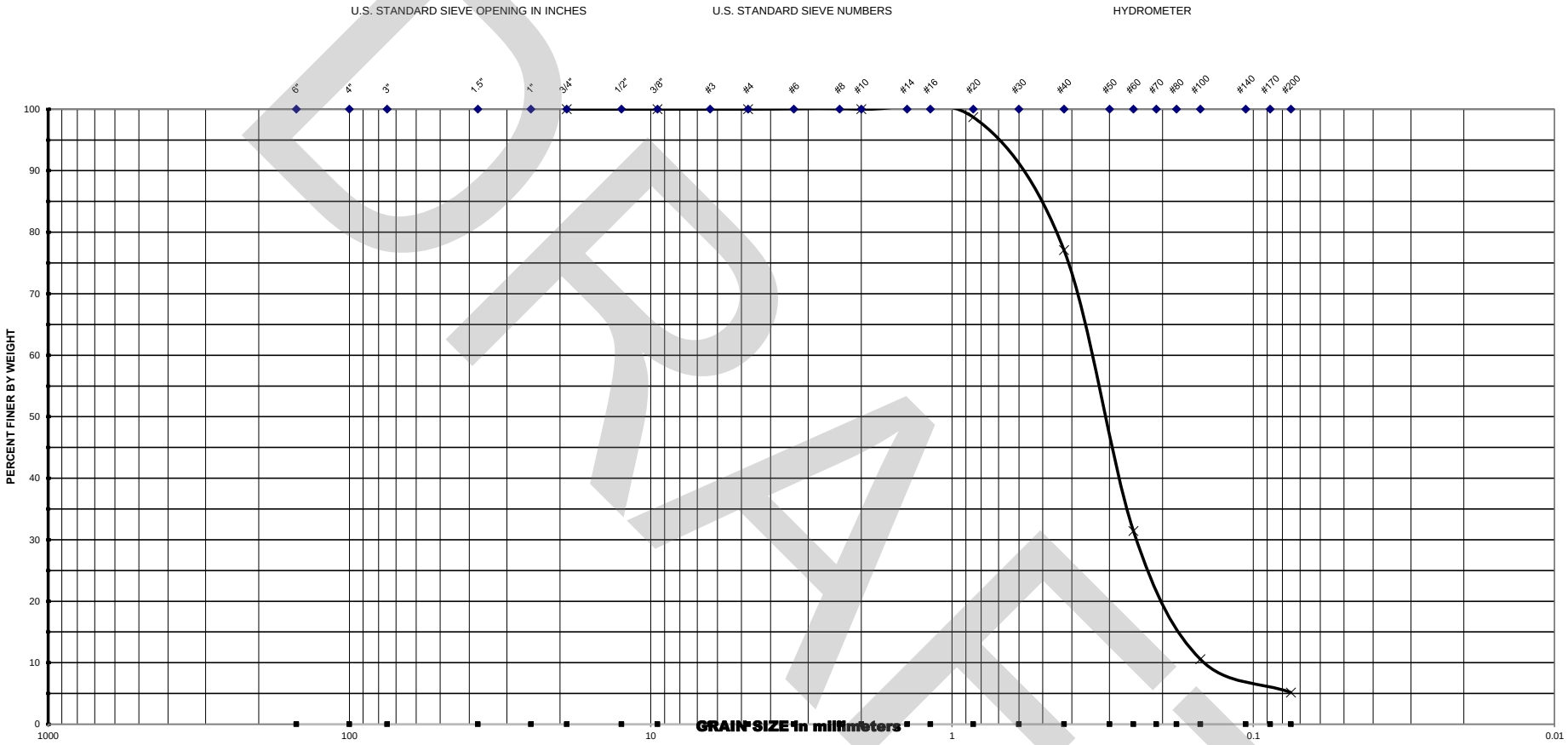
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-216	4.0 - 6.0	A-3	18.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	99.0
#40	81.0
#60	34.2
#100	9.0
#200	1.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

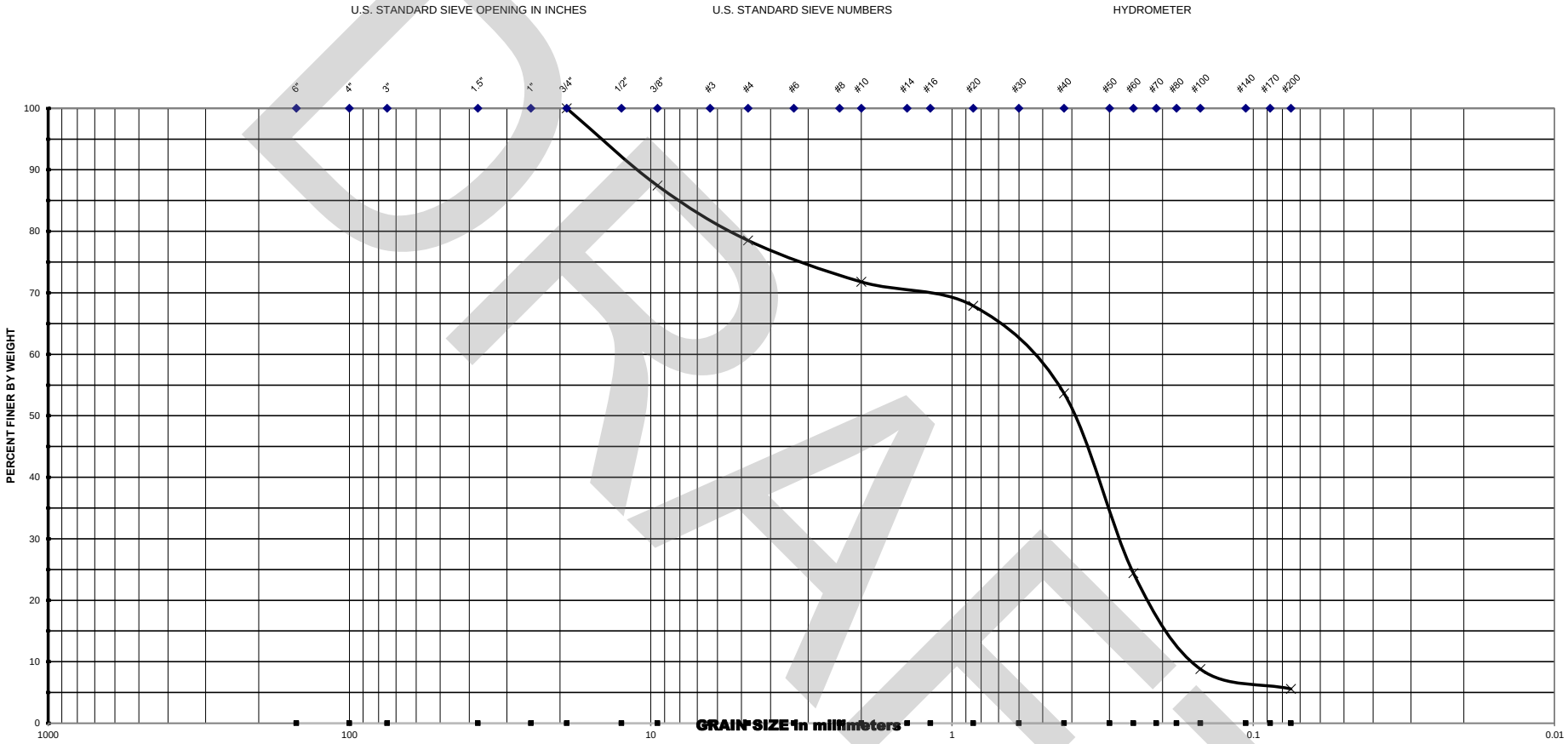
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-216	8.0 - 10.0	A-3	9.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	98.7
#40	77.1
#60	31.4
#100	10.6
#200	5.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

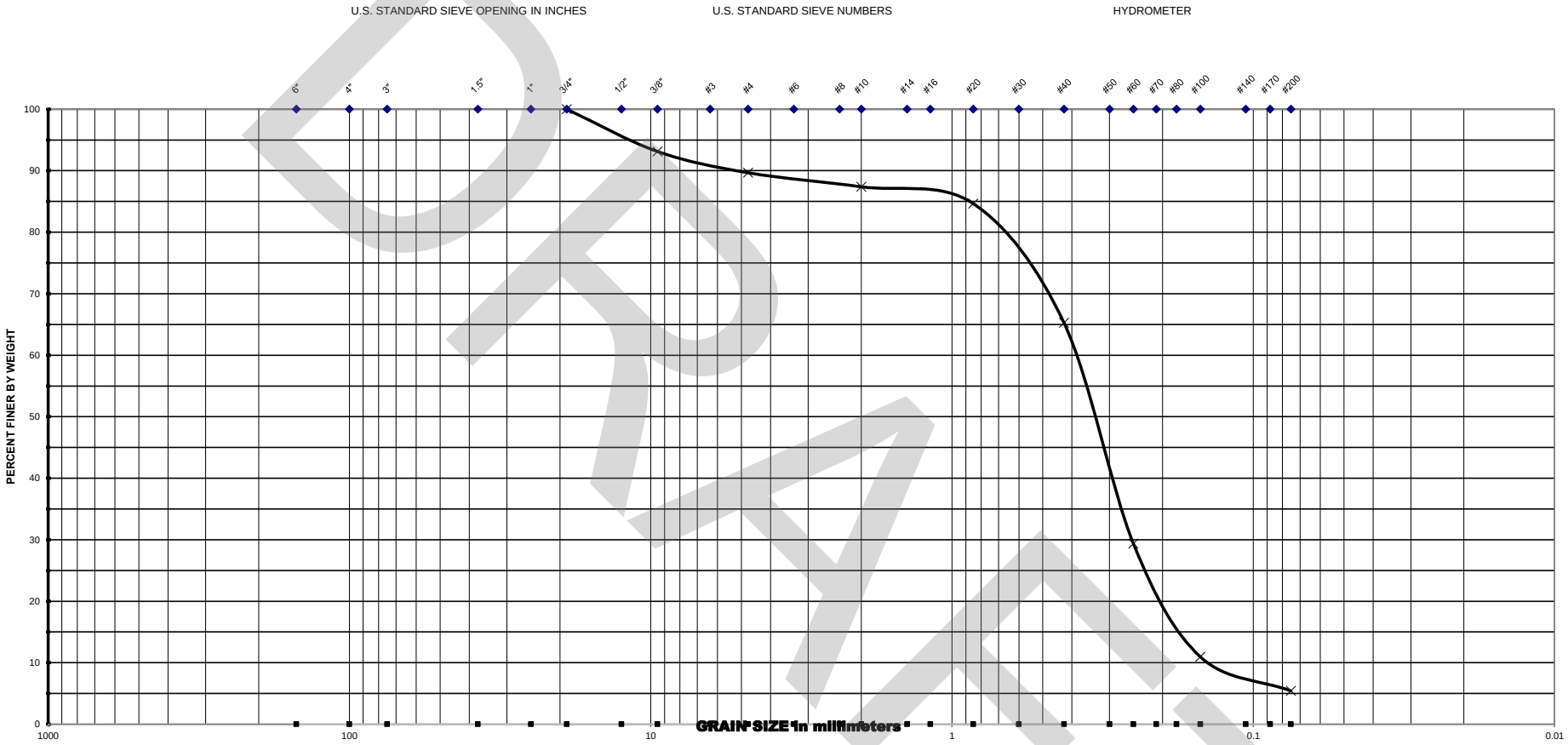
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-217	6.0 - 8.0	A-3	12.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	87.4
#4	78.5
#10	71.8
#20	67.9
#40	53.7
#60	24.4
#100	8.8
#200	5.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

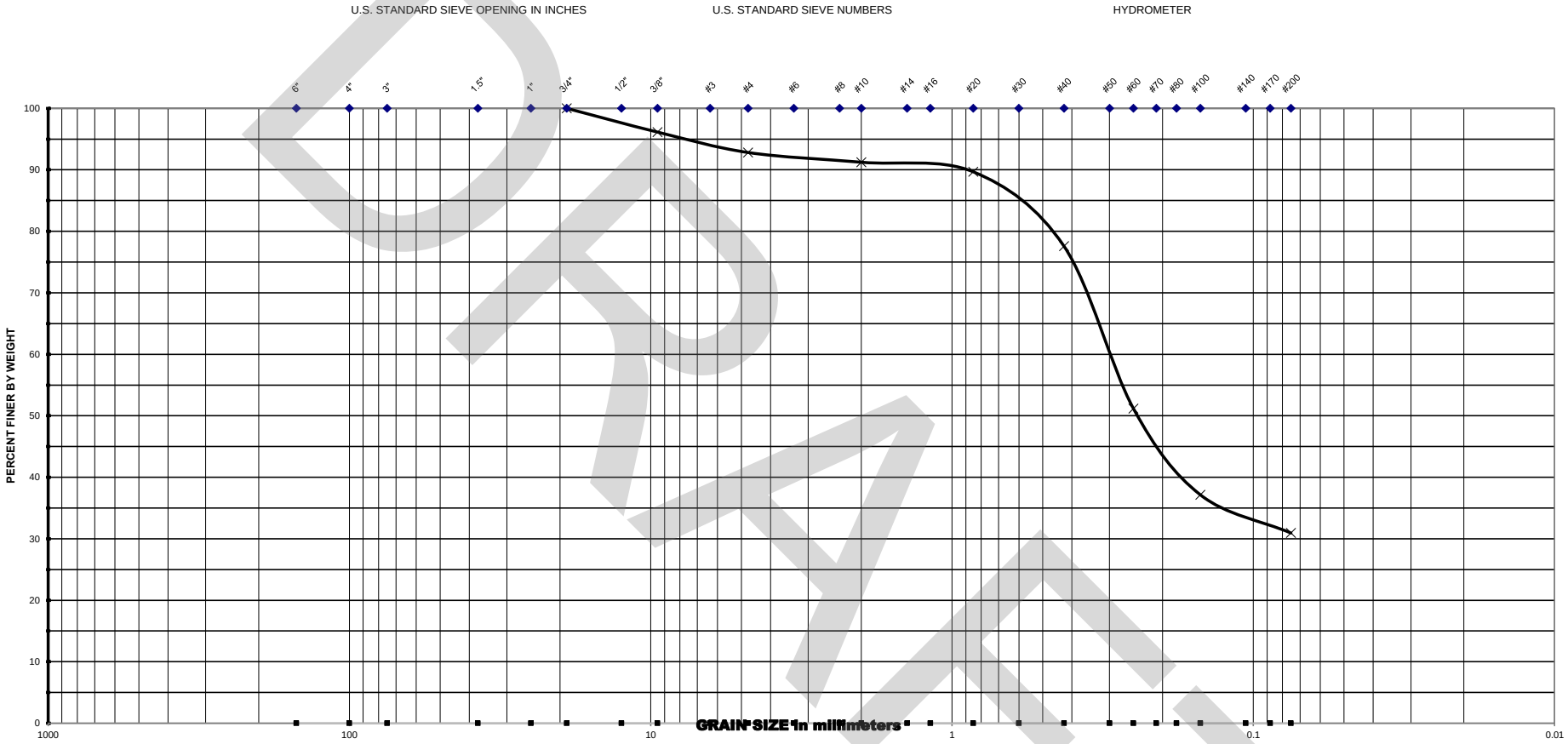
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-217	8.0 - 10.0	A-3	13.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	93.1
#4	89.7
#10	87.4
#20	84.6
#40	65.3
#60	29.4
#100	11.0
#200	5.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

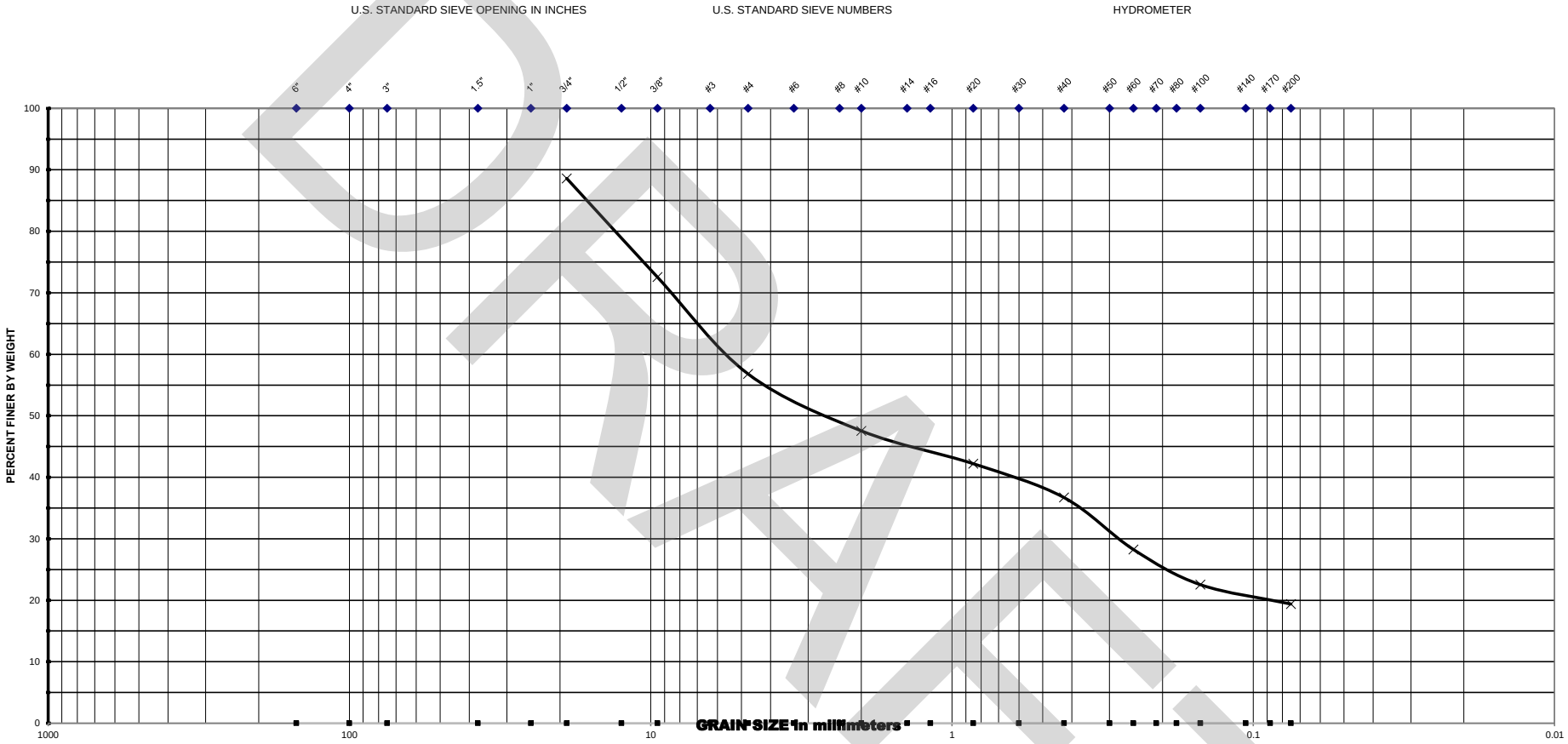
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-219	0.0 - 2.0	A-2-4	14.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.1
#4	92.8
#10	91.2
#20	89.7
#40	77.6
#60	51.2
#100	37.2
#200	30.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

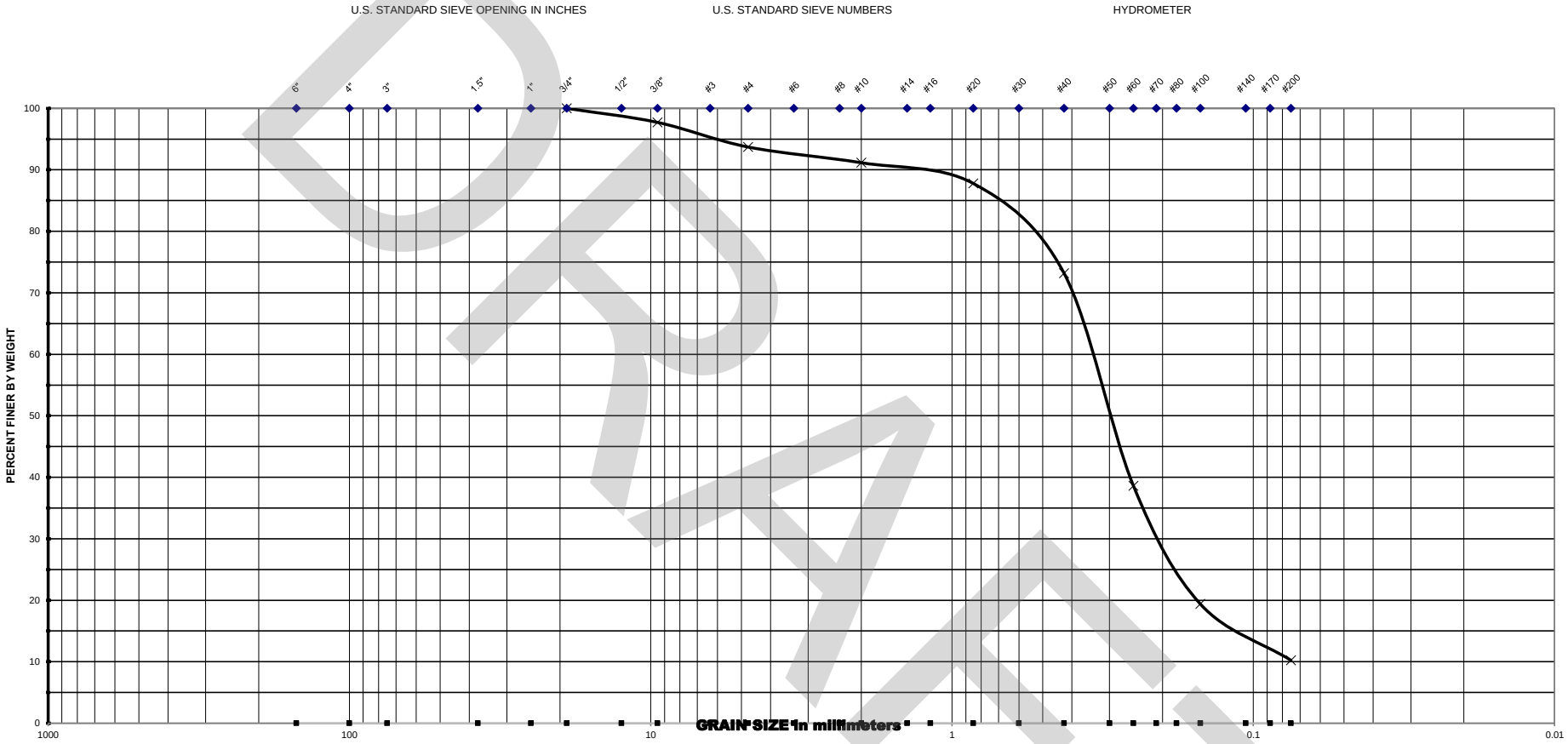
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-219	2.0 - 4.0	A-1-b	11.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	88.6
3/8"	72.5
#4	56.8
#10	47.5
#20	42.2
#40	36.7
#60	28.3
#100	22.5
#200	19.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

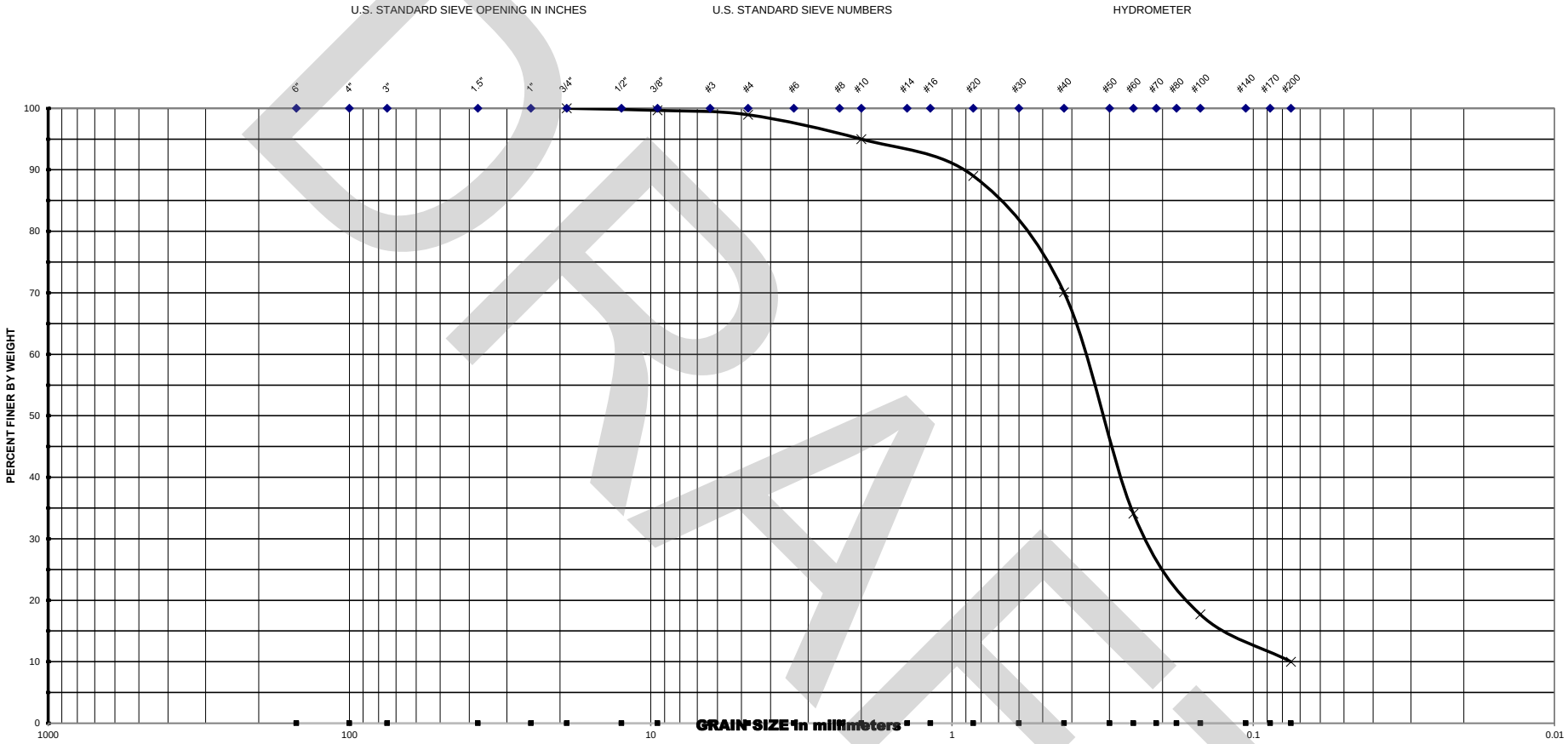
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-220	2.0 - 4.0	A-3	19.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	97.7
#4	93.7
#10	91.2
#20	87.8
#40	73.2
#60	38.6
#100	19.4
#200	10.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

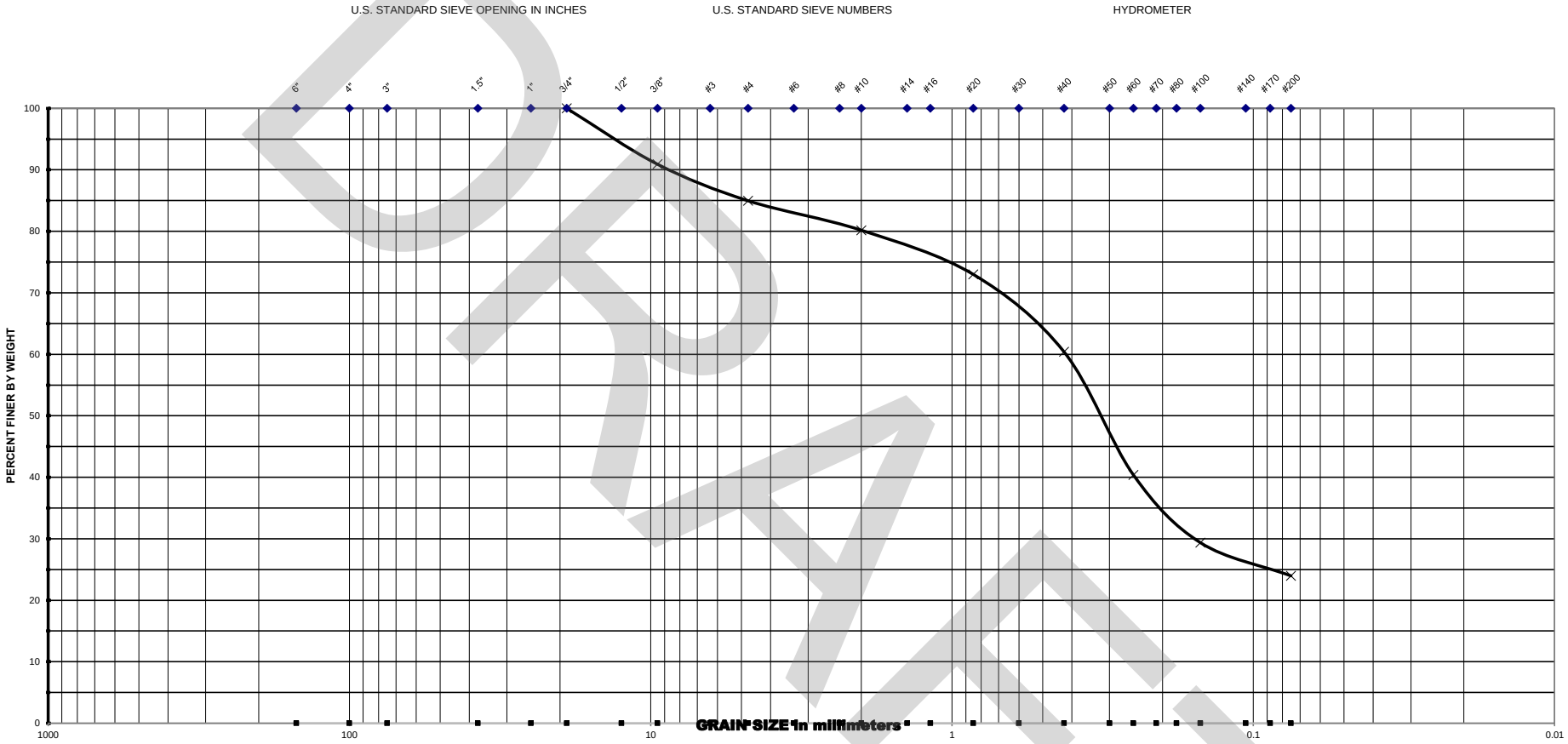
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-220	4.0 - 6.0	A-3	54.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.7
#4	99.0
#10	95.0
#20	89.0
#40	70.1
#60	34.1
#100	17.7
#200	10.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

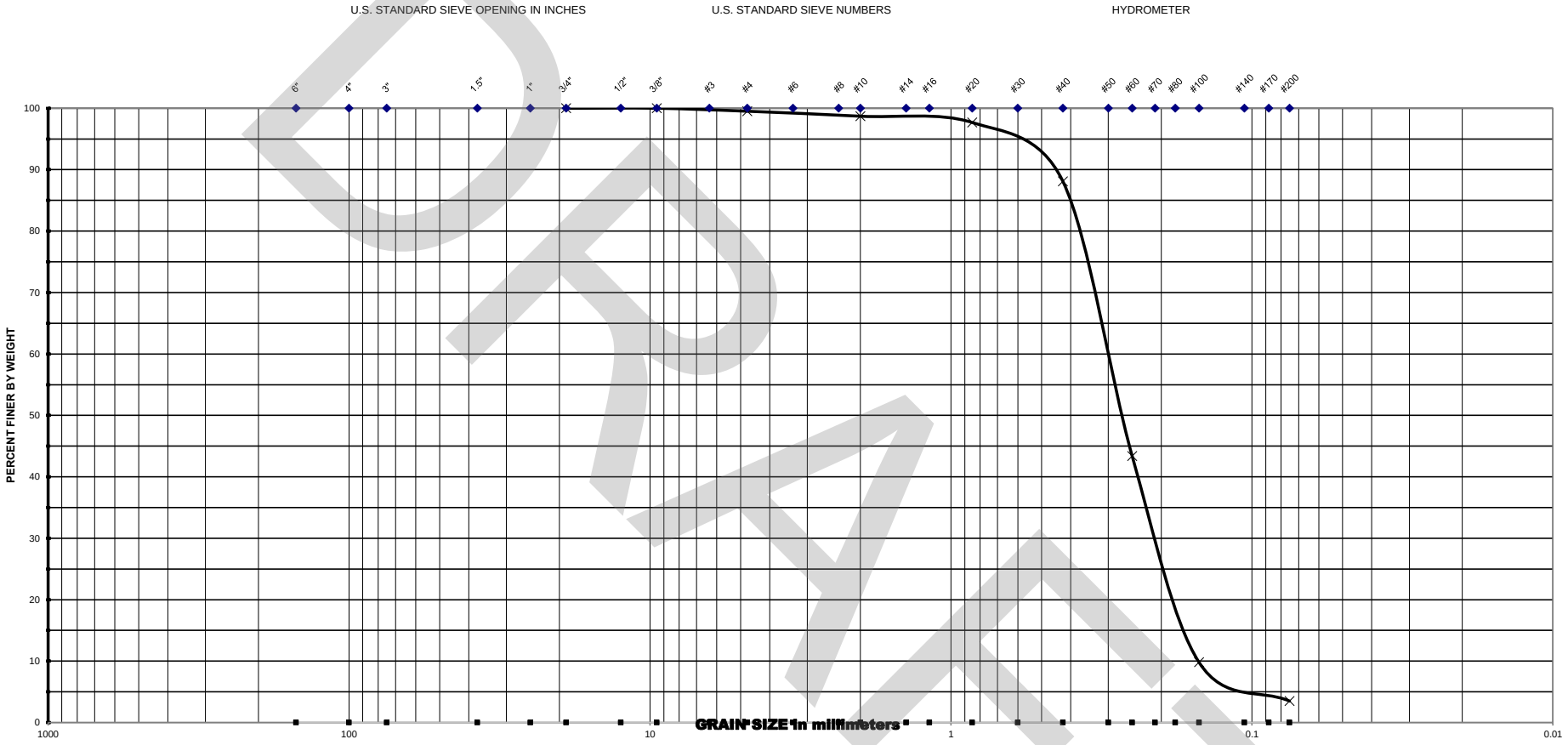
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-220	6.0 - 8.0	A-2-4	23.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	90.9
#4	85.0
#10	80.2
#20	73.0
#40	60.4
#60	40.4
#100	29.4
#200	24.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

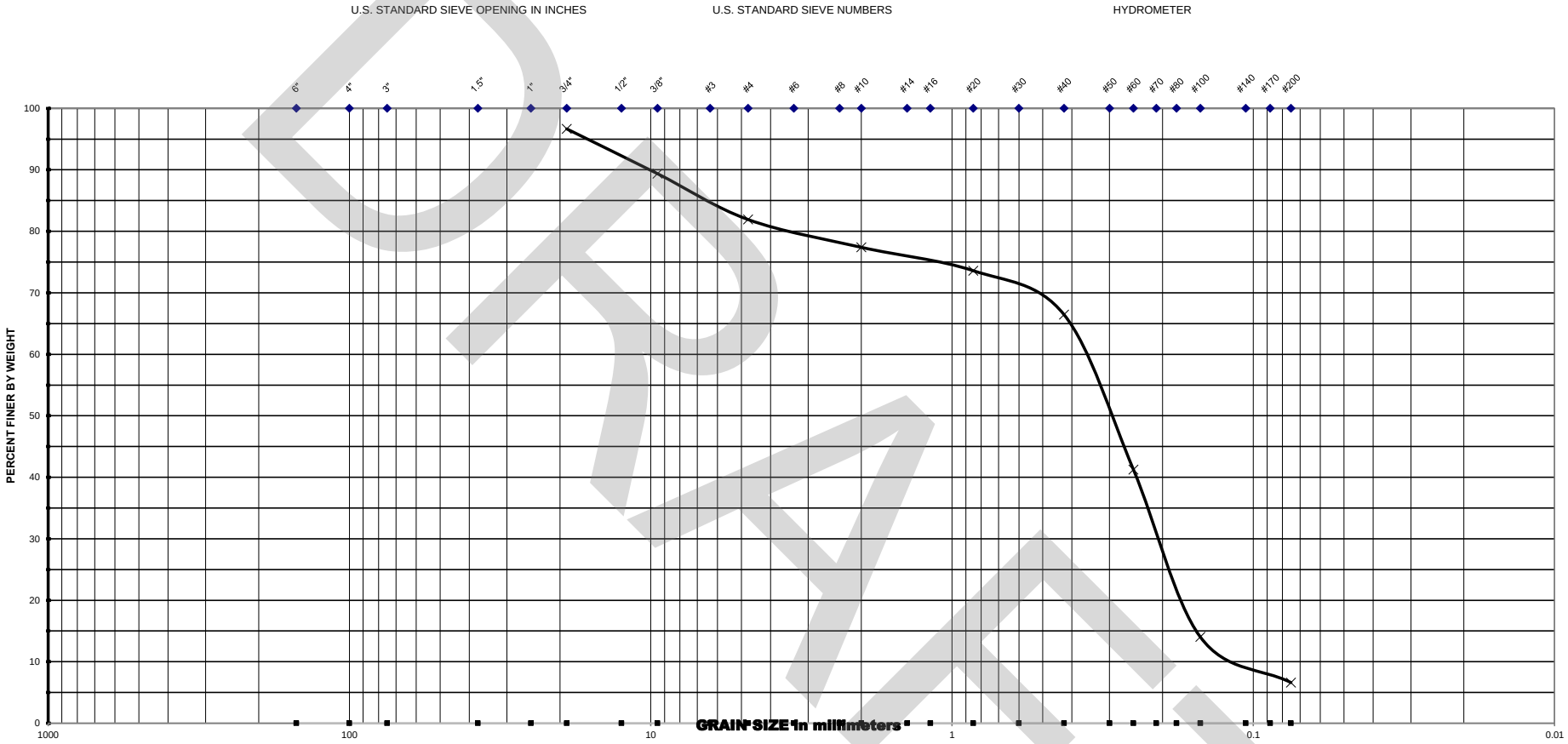
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-301A	2.0 - 4.0	A-3	36.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.5
#10	98.7
#20	97.7
#40	88.1
#60	43.4
#100	9.8
#200	3.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

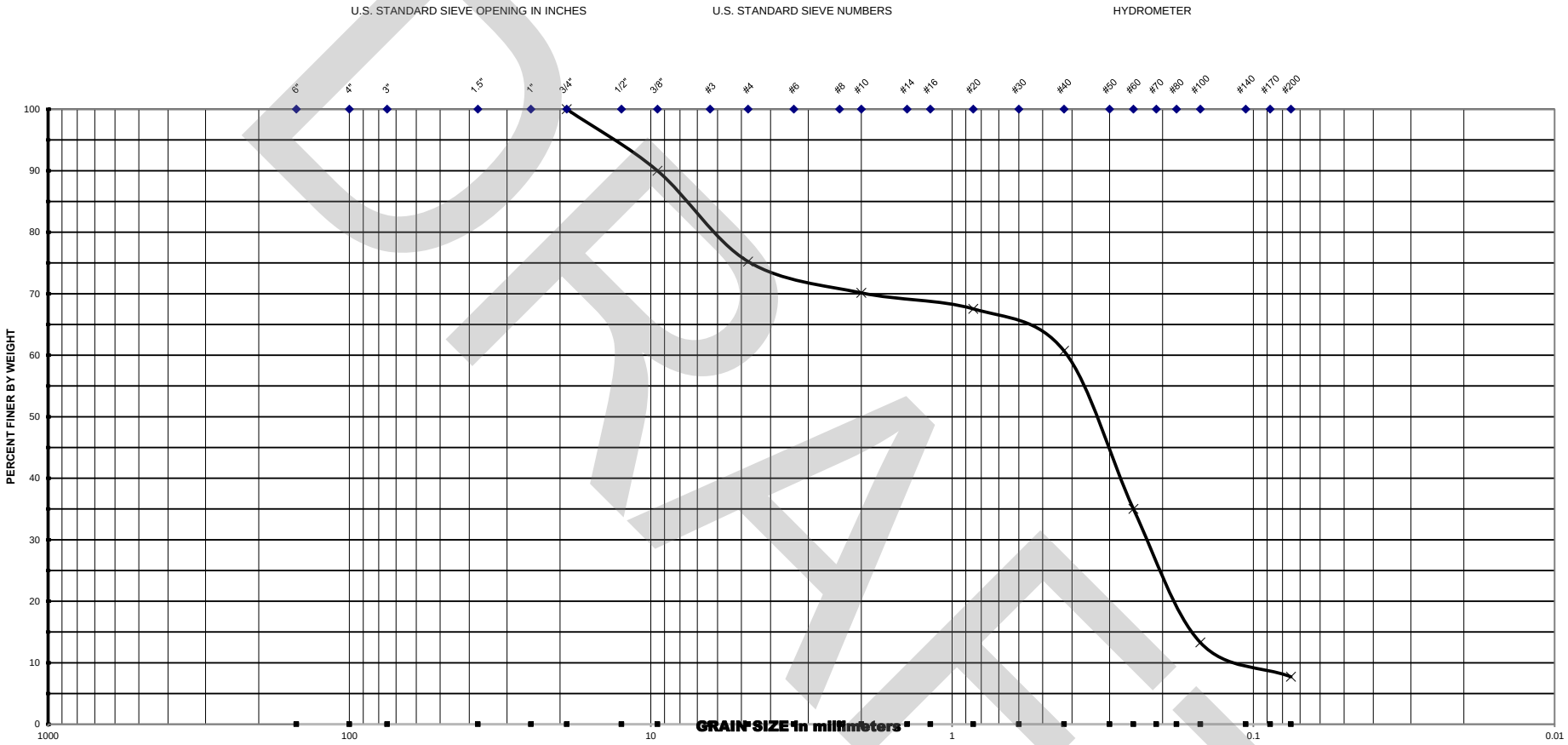
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-301A	6.0 - 8.0	A-3	26.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	96.7
3/8"	89.4
#4	81.9
#10	77.4
#20	73.6
#40	66.5
#60	41.2
#100	14.0
#200	6.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

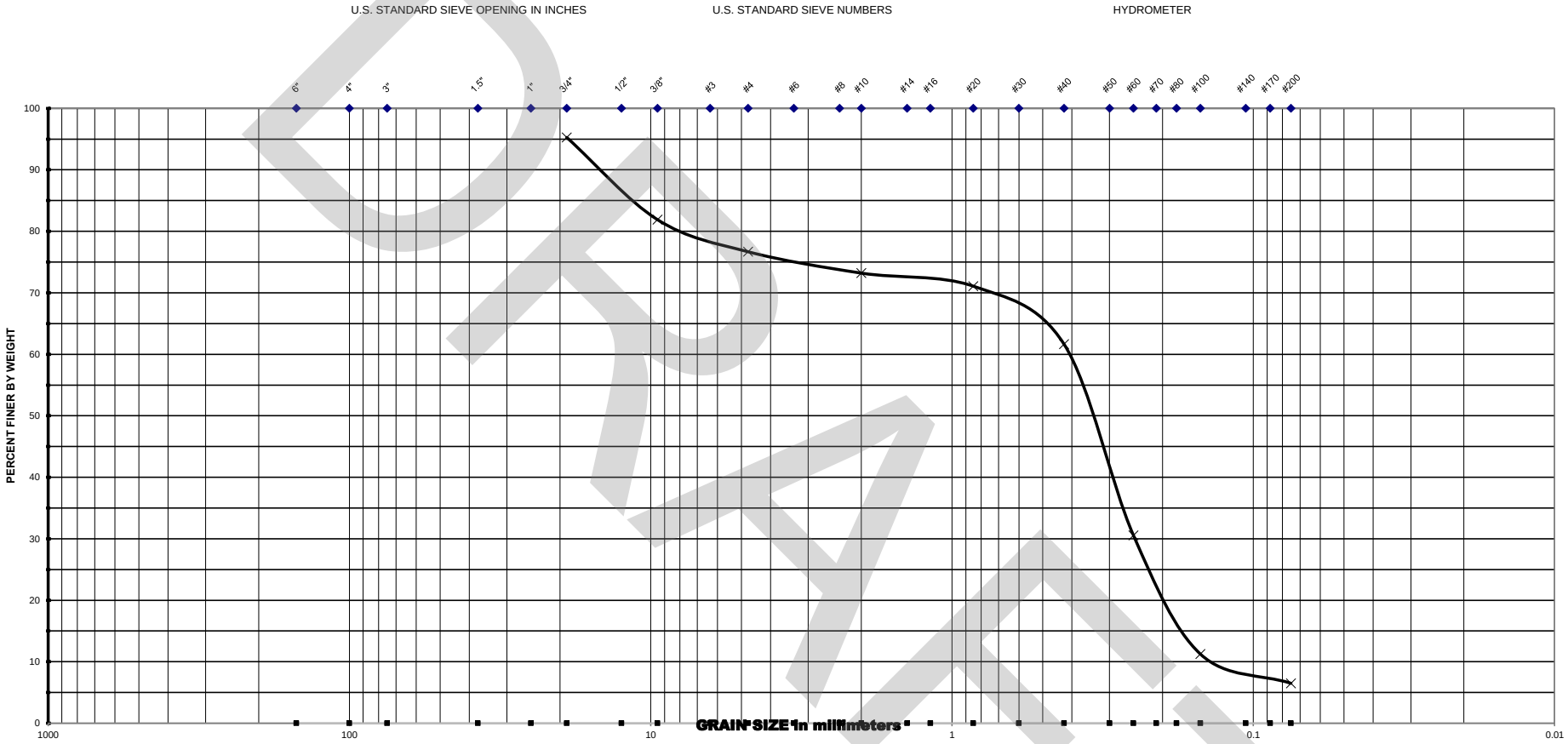
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-302	8.0 - 10.0	A-3	17.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	90.0
#4	75.2
#10	70.1
#20	67.5
#40	60.7
#60	35.0
#100	13.3
#200	7.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

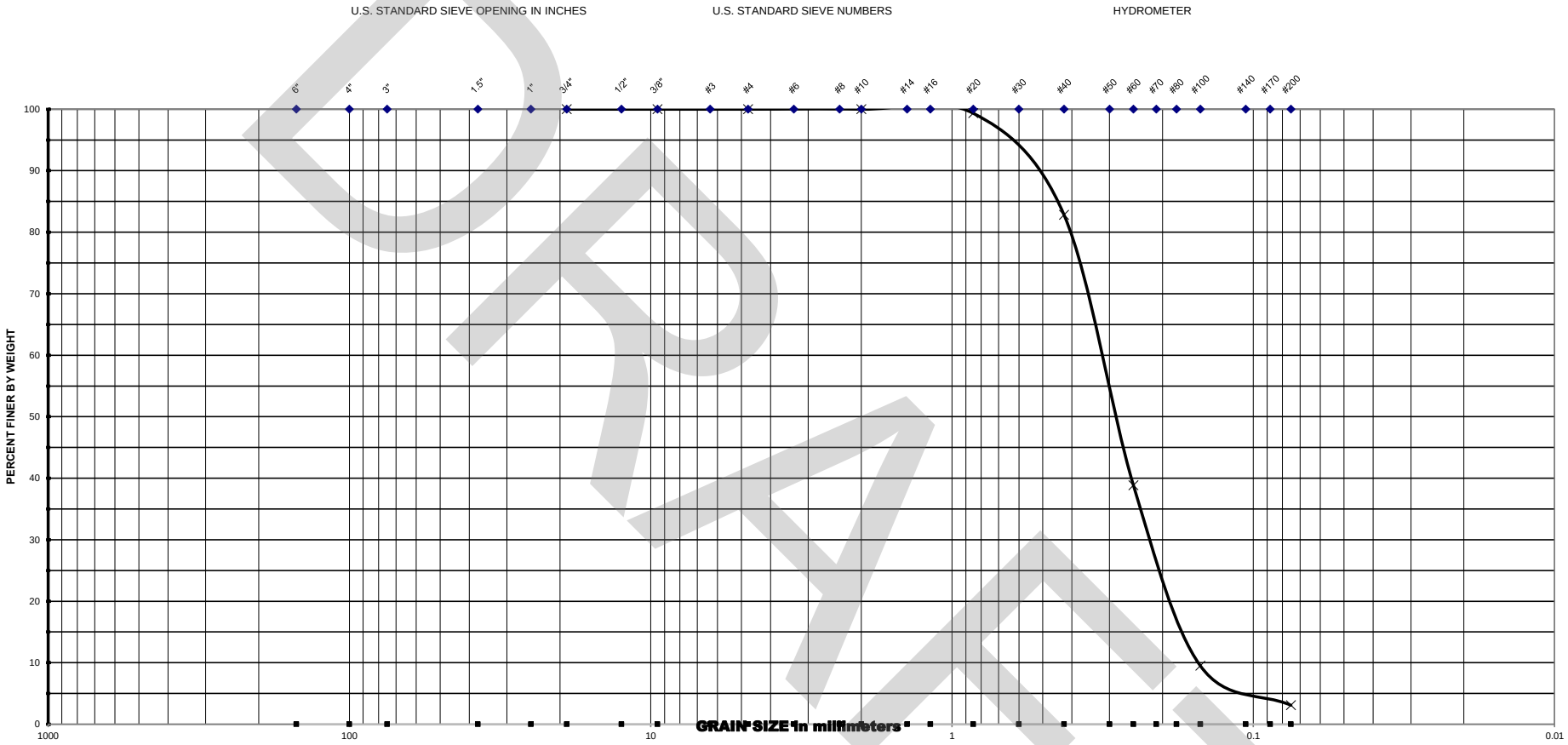
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-303	2.0 - 4.0	A-3	8.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	95.3
3/8"	81.9
#4	76.7
#10	73.2
#20	71.1
#40	61.7
#60	30.6
#100	11.3
#200	6.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

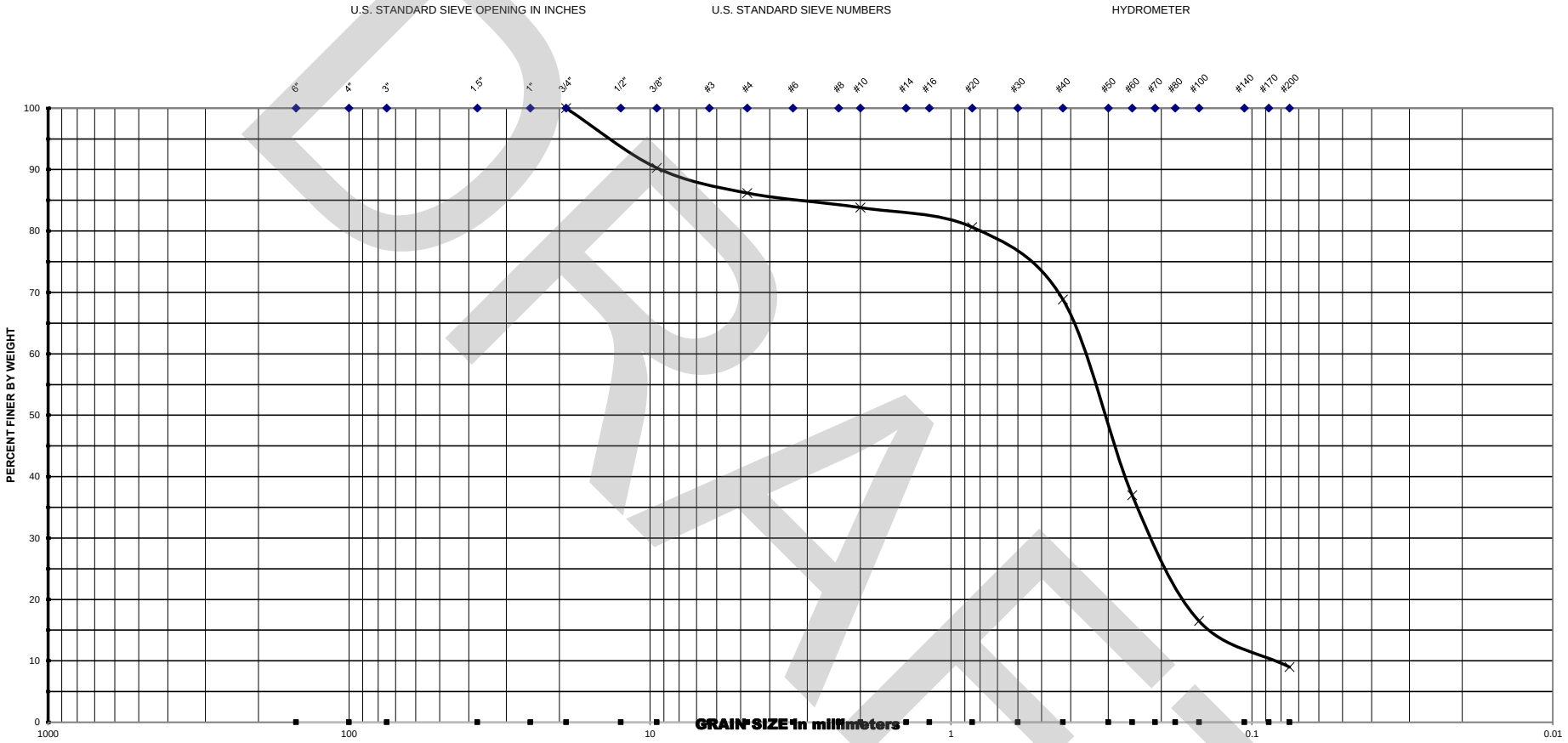
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-303	8.0 - 10.0	A-3	11.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	99.3
#40	82.8
#60	38.9
#100	9.5
#200	3.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

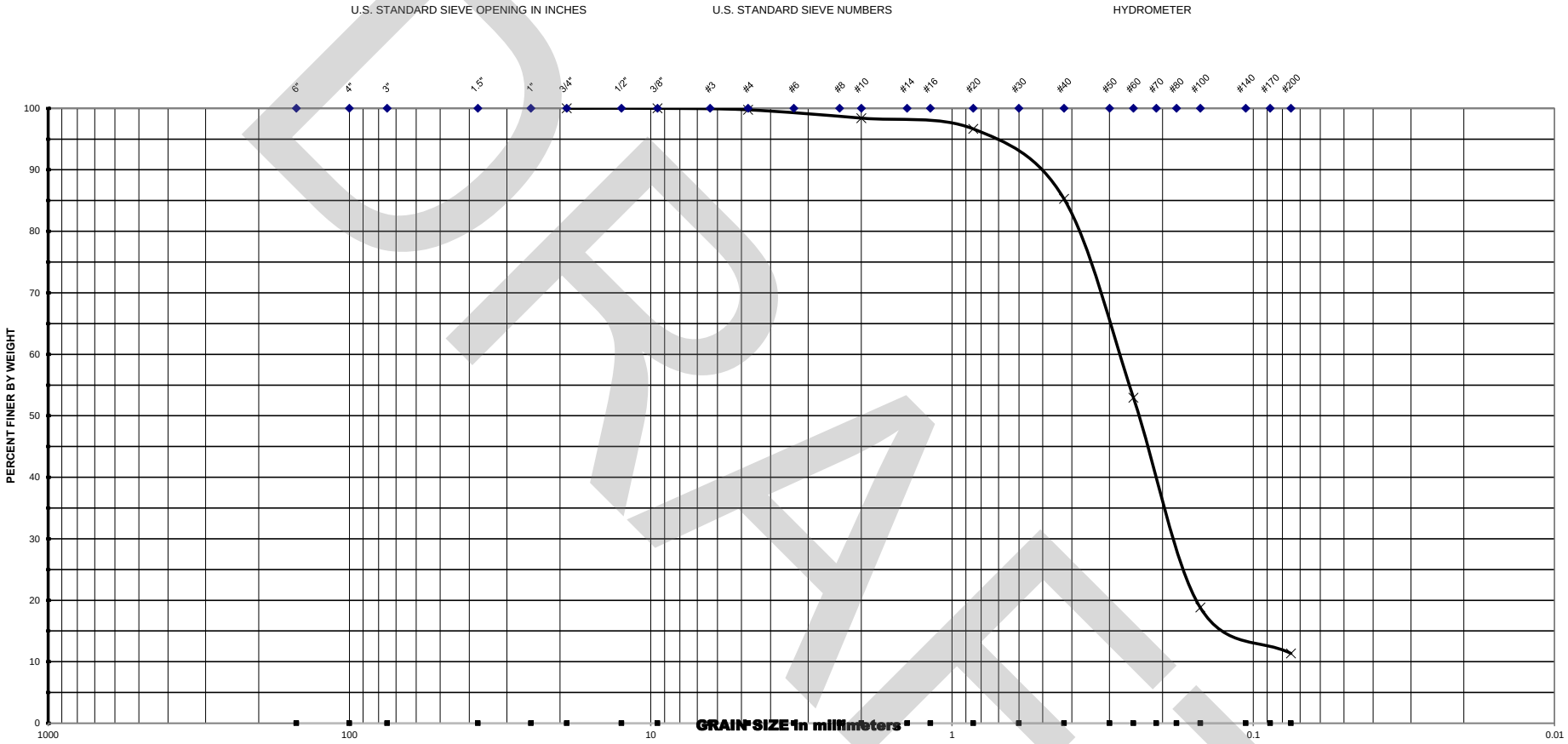
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-304	8.0 - 10.0	A-3	15.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	90.3
#4	86.2
#10	83.8
#20	80.6
#40	68.9
#60	37.0
#100	16.5
#200	9.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

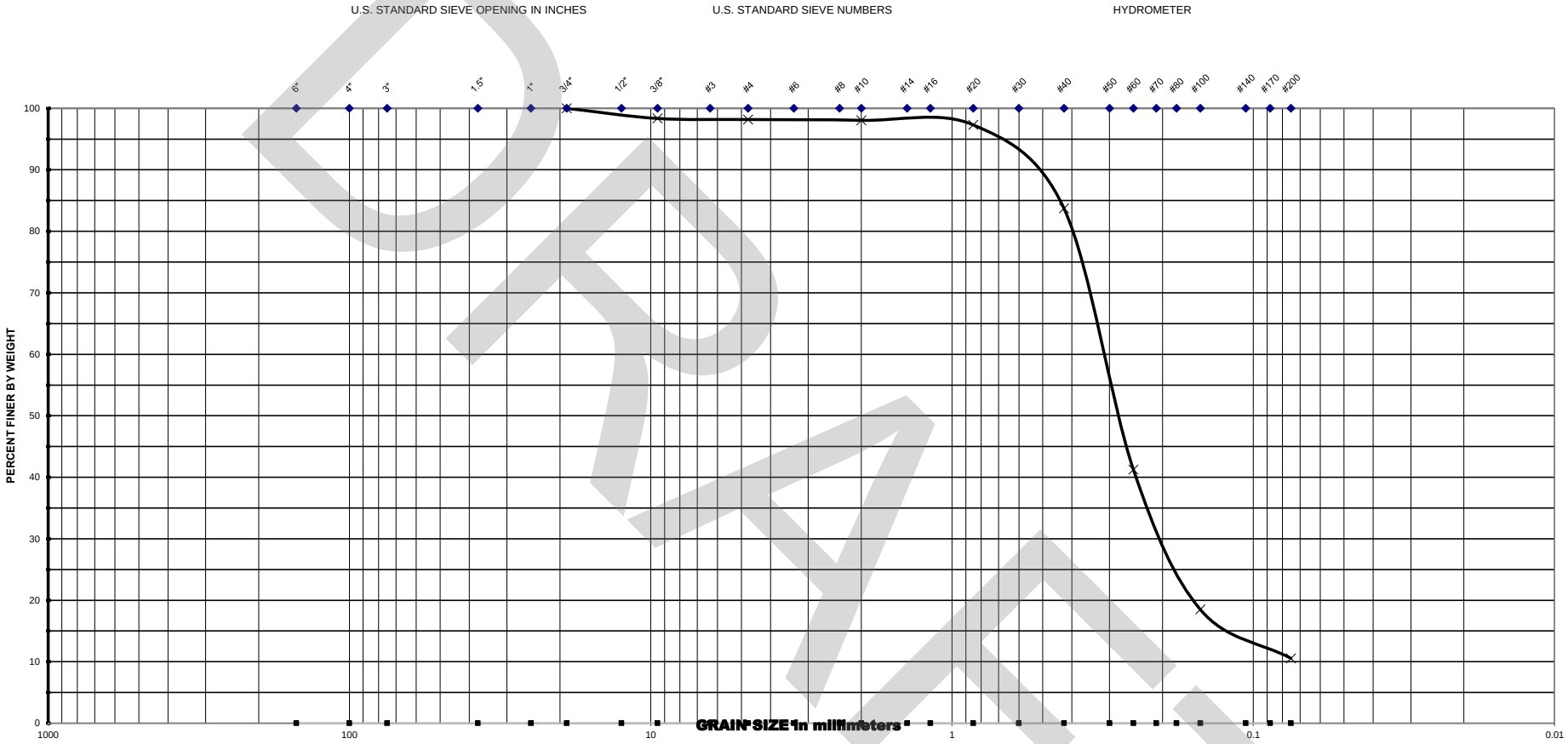
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-305	2.0 - 4.0	A-2-4	5.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.8
#10	98.4
#20	96.7
#40	85.3
#60	52.9
#100	18.8
#200	11.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 8/30/2017

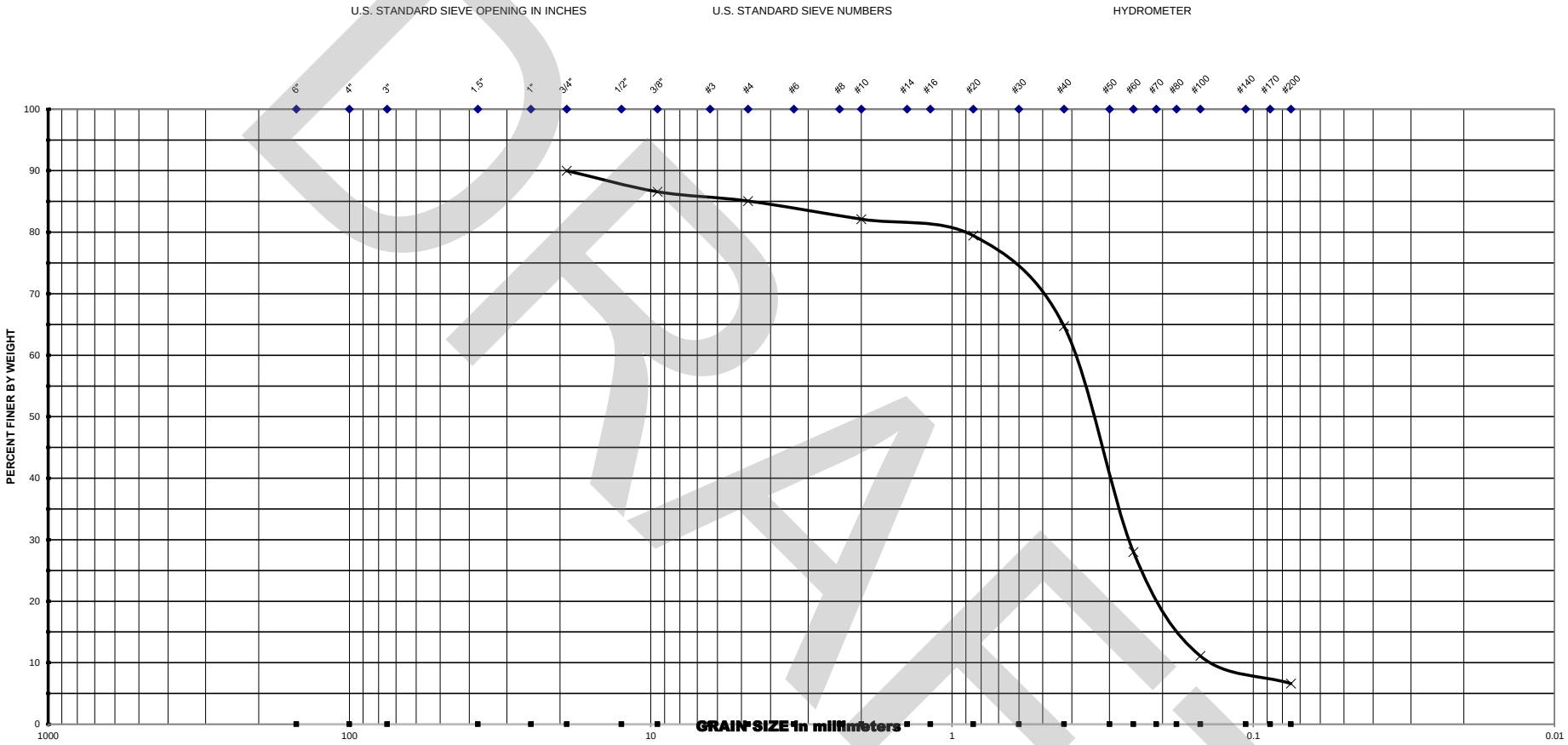
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-305	4.0 - 6.0	A-2-4	27.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	98.4
#4	98.2
#10	98.1
#20	97.3
#40	83.7
#60	41.2
#100	18.5
#200	10.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

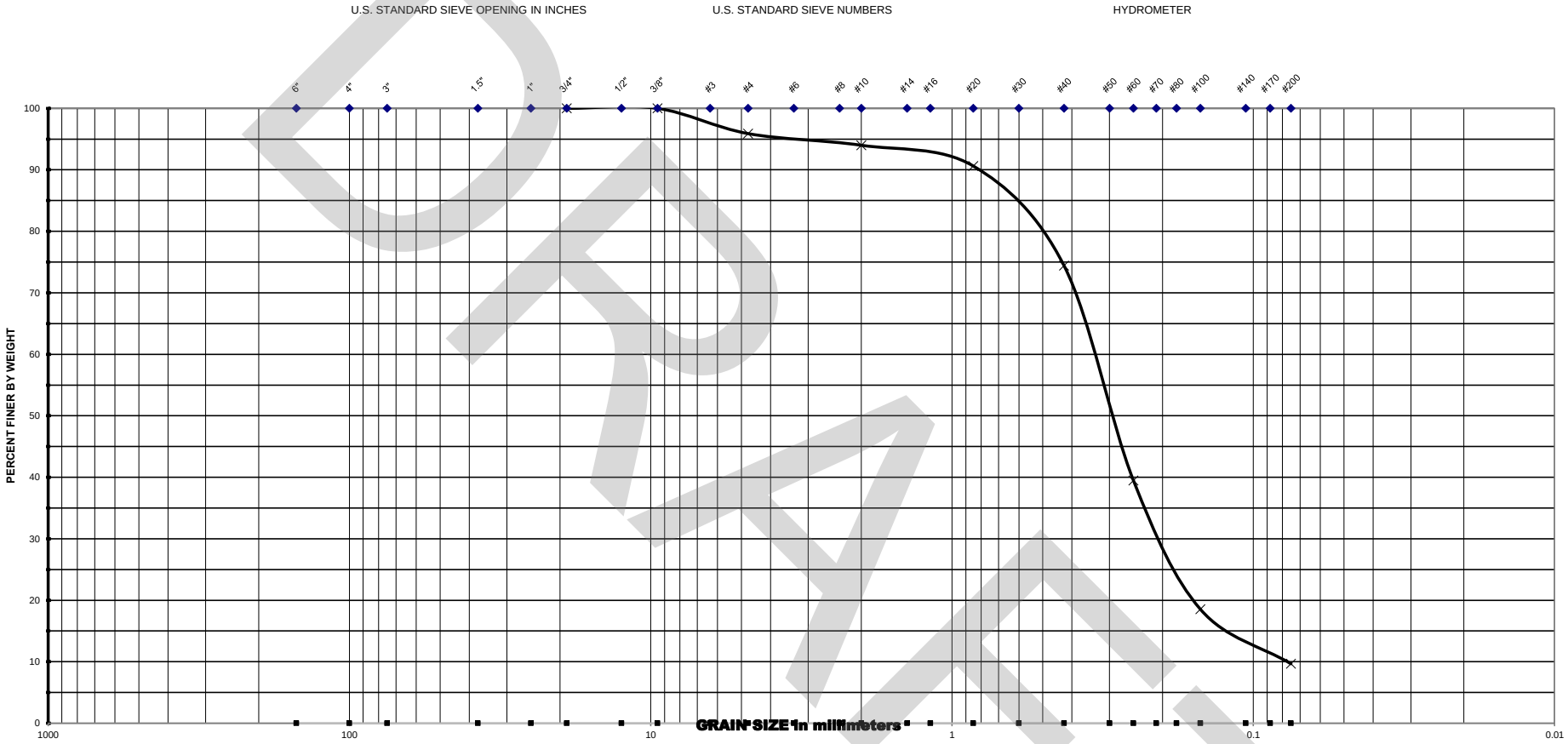
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-306	8.0 - 10.0	A-3	19.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	90.0
3/8"	86.6
#4	85.1
#10	82.1
#20	79.4
#40	64.7
#60	28.0
#100	11.1
#200	6.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

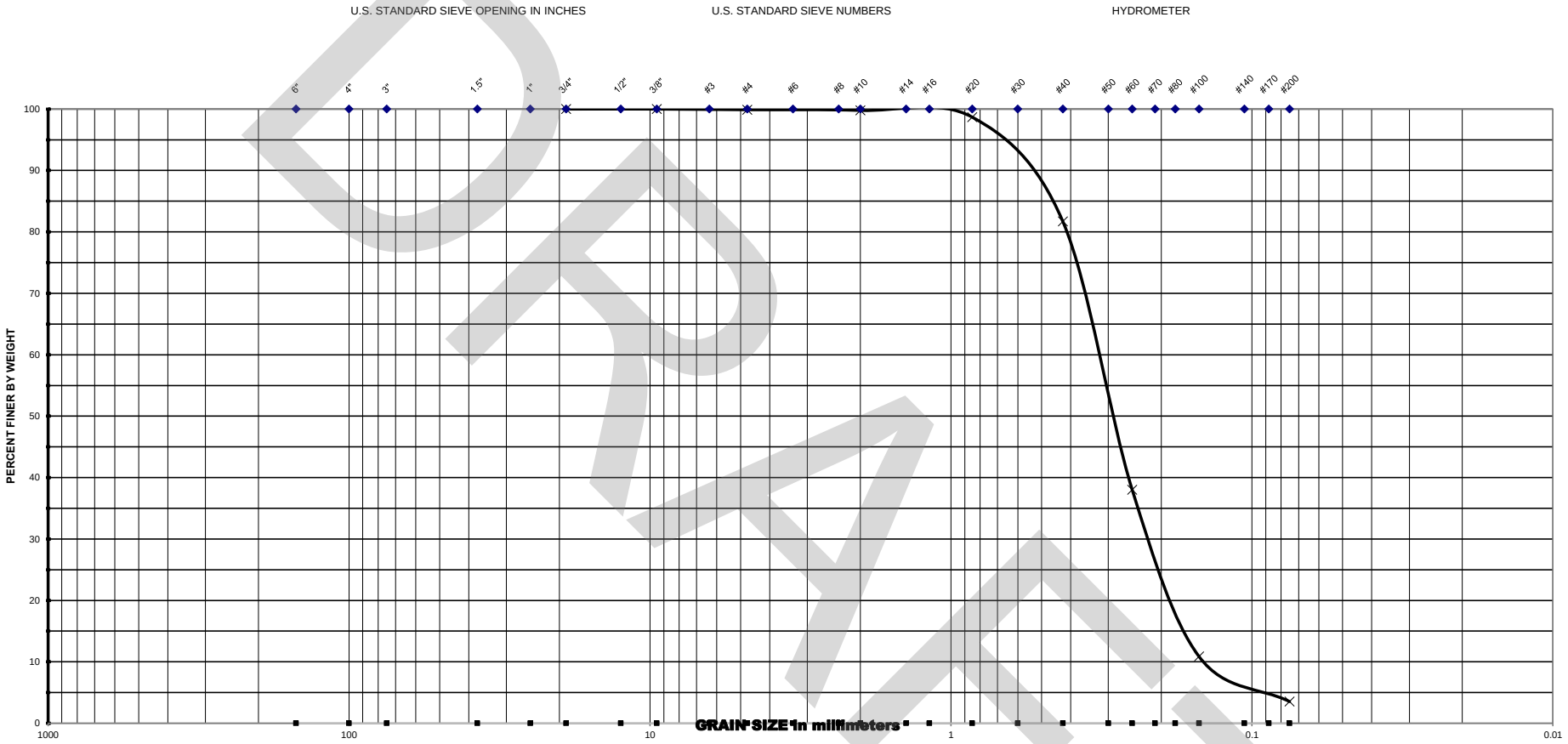
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-307	0.0 - 2.0	A-3	32.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	95.9
#10	94.0
#20	90.6
#40	74.4
#60	39.5
#100	18.6
#200	9.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

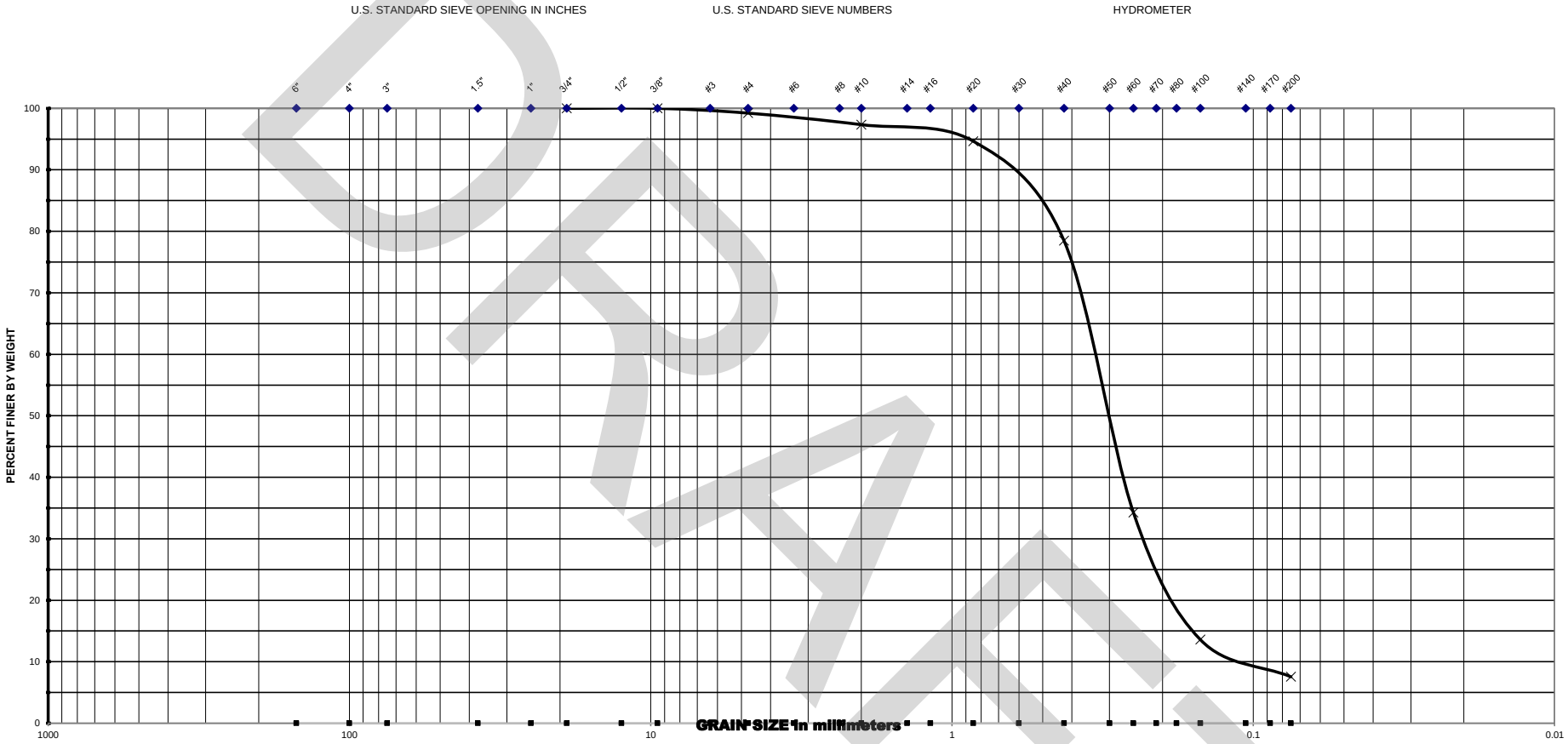
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-308	2.0 - 4.0	A-3	22.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.8
#20	98.7
#40	81.7
#60	38.0
#100	10.9
#200	3.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

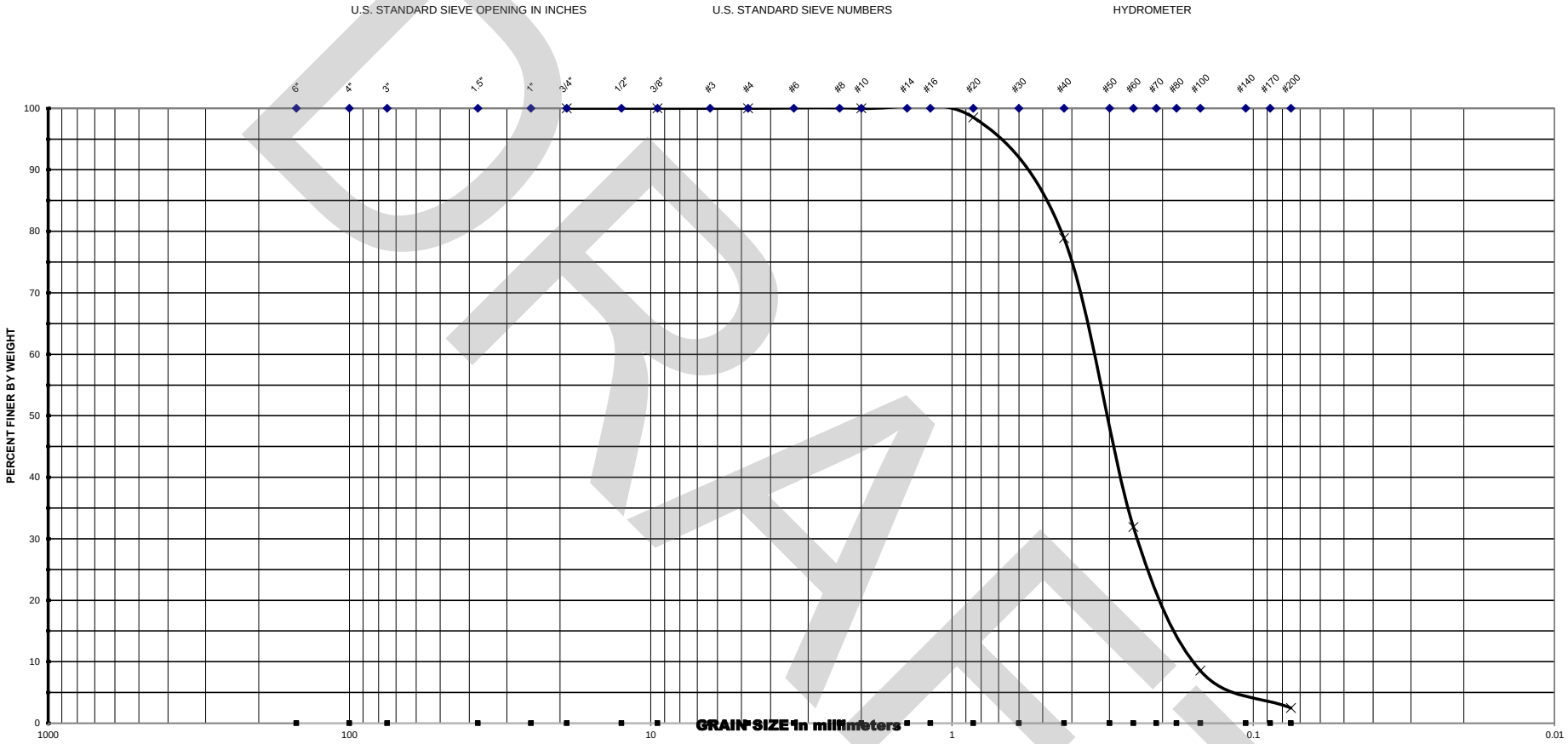
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-308	4.0 - 6.0	A-3	85.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.2
#10	97.3
#20	94.7
#40	78.5
#60	34.3
#100	13.6
#200	7.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/1/2017

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-309	2.0 - 4.0	A-3	14.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	98.5
#40	78.9
#60	31.9
#100	8.6
#200	2.5

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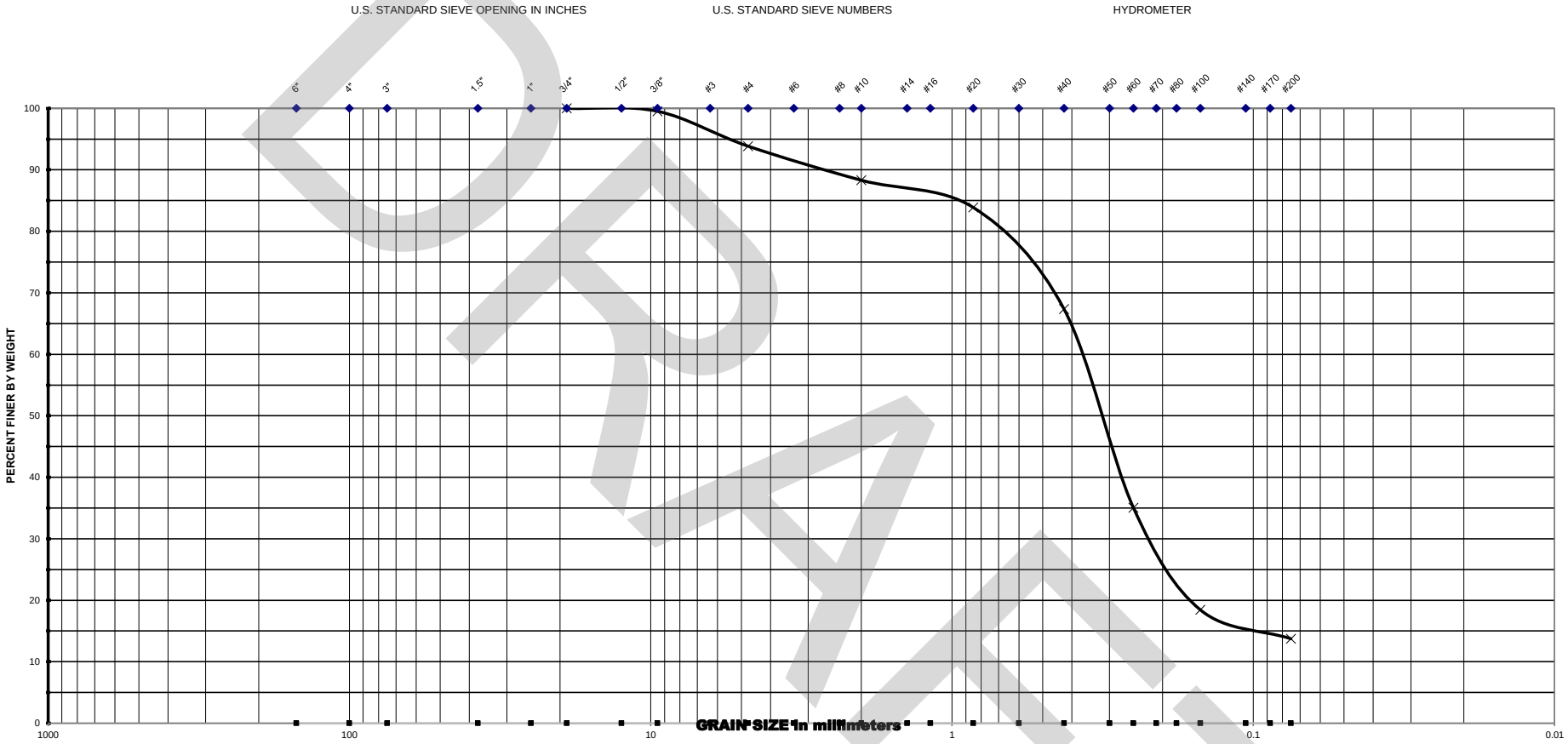


Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

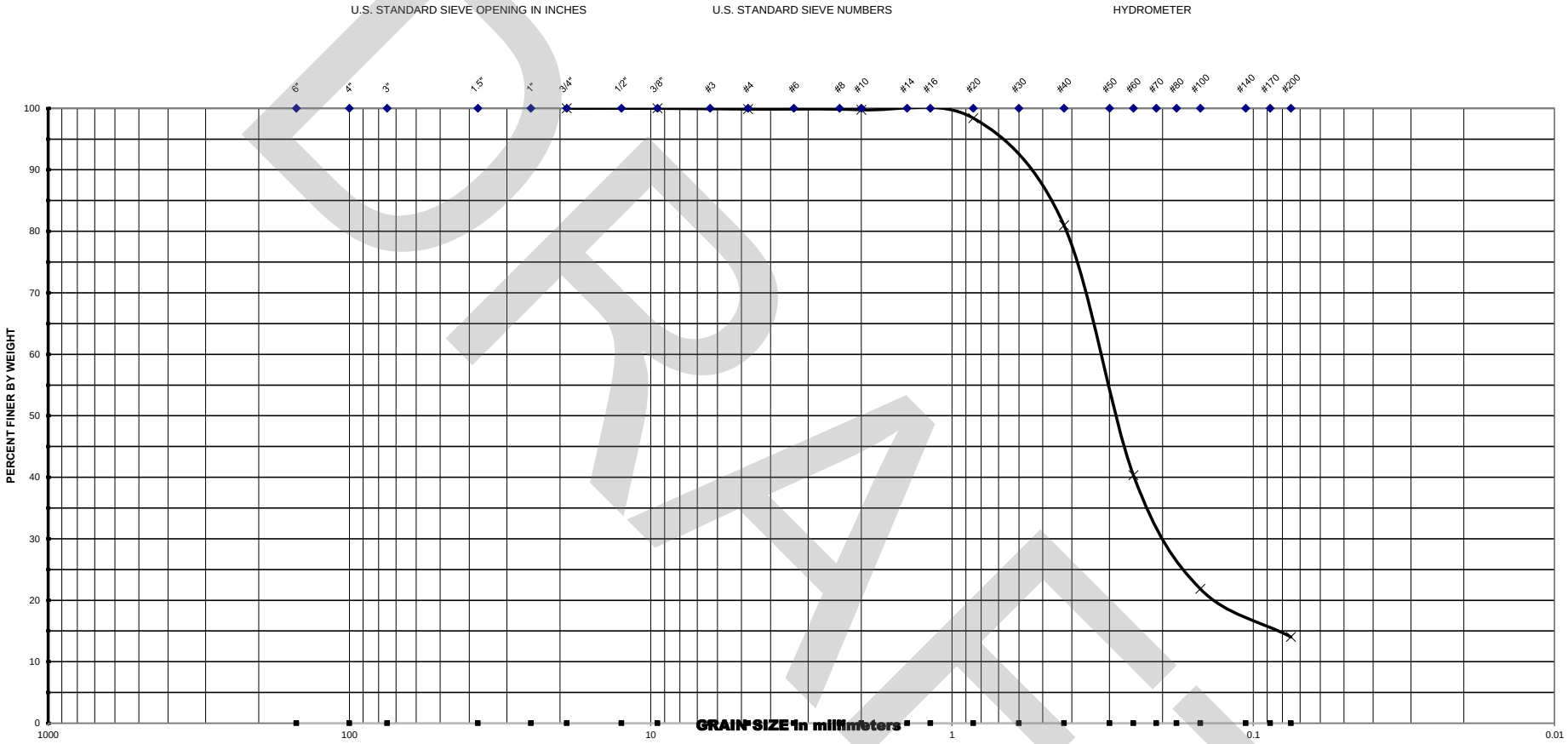
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-309	8.0 - 10.0	A-2-4	10.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.5
#4	93.8
#10	88.3
#20	83.9
#40	67.4
#60	35.0
#100	18.5
#200	13.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

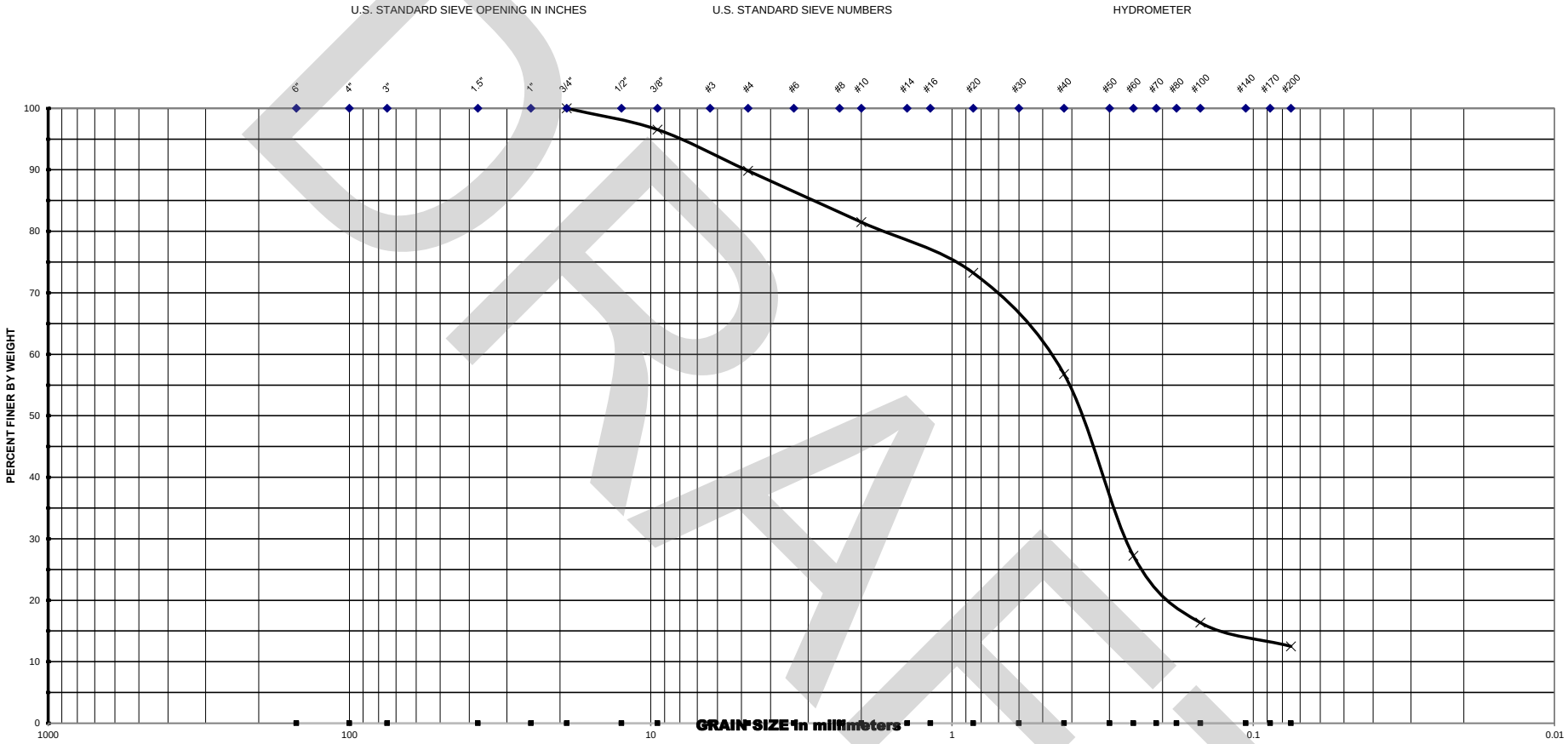
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-310	2.0 - 4.0	A-2-6	18.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.8
#20	98.4
#40	81.0
#60	40.3
#100	21.9
#200	14.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

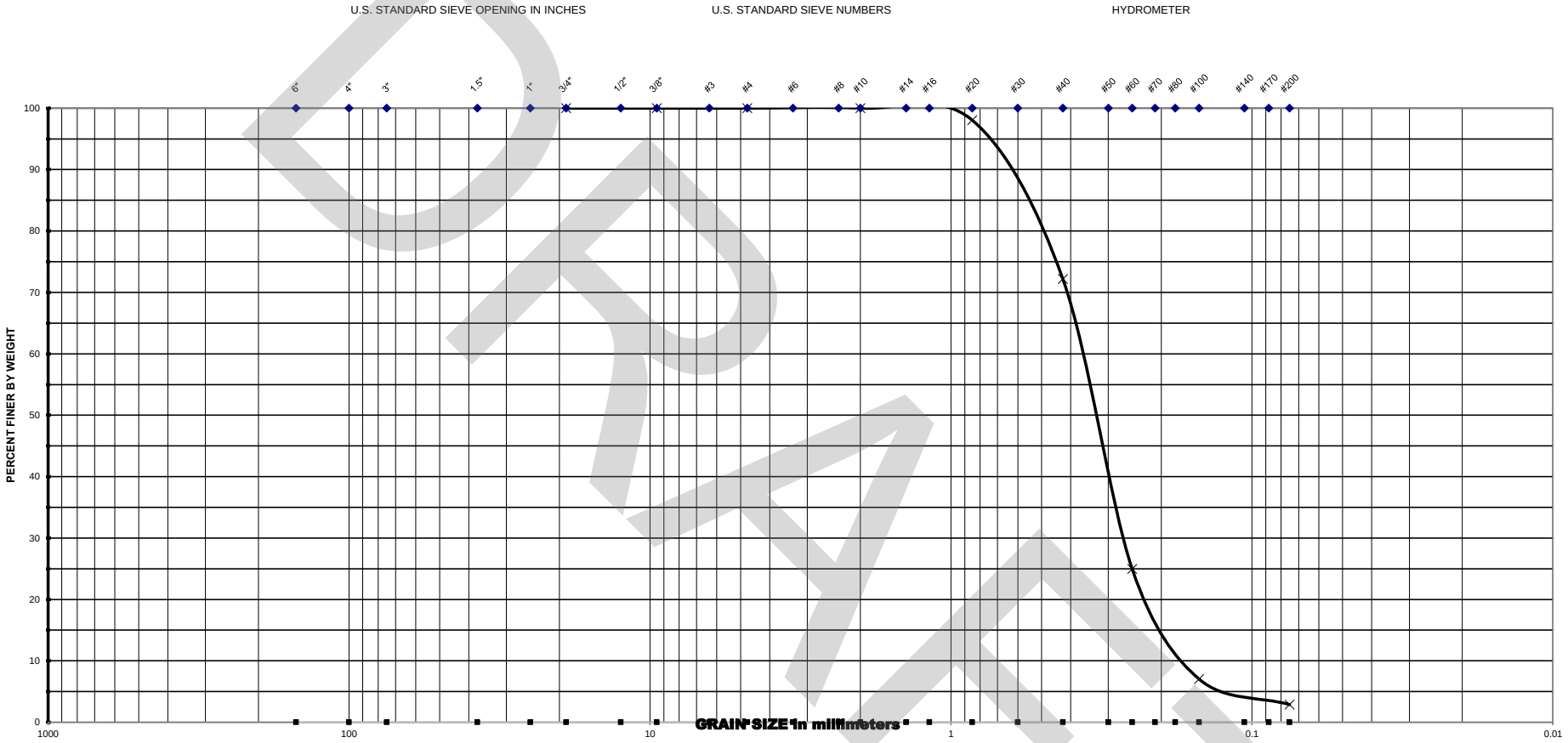
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-310	4.0 - 6.0	A-2-4	20.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.5
#4	89.8
#10	81.5
#20	73.2
#40	56.8
#60	27.2
#100	16.4
#200	12.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

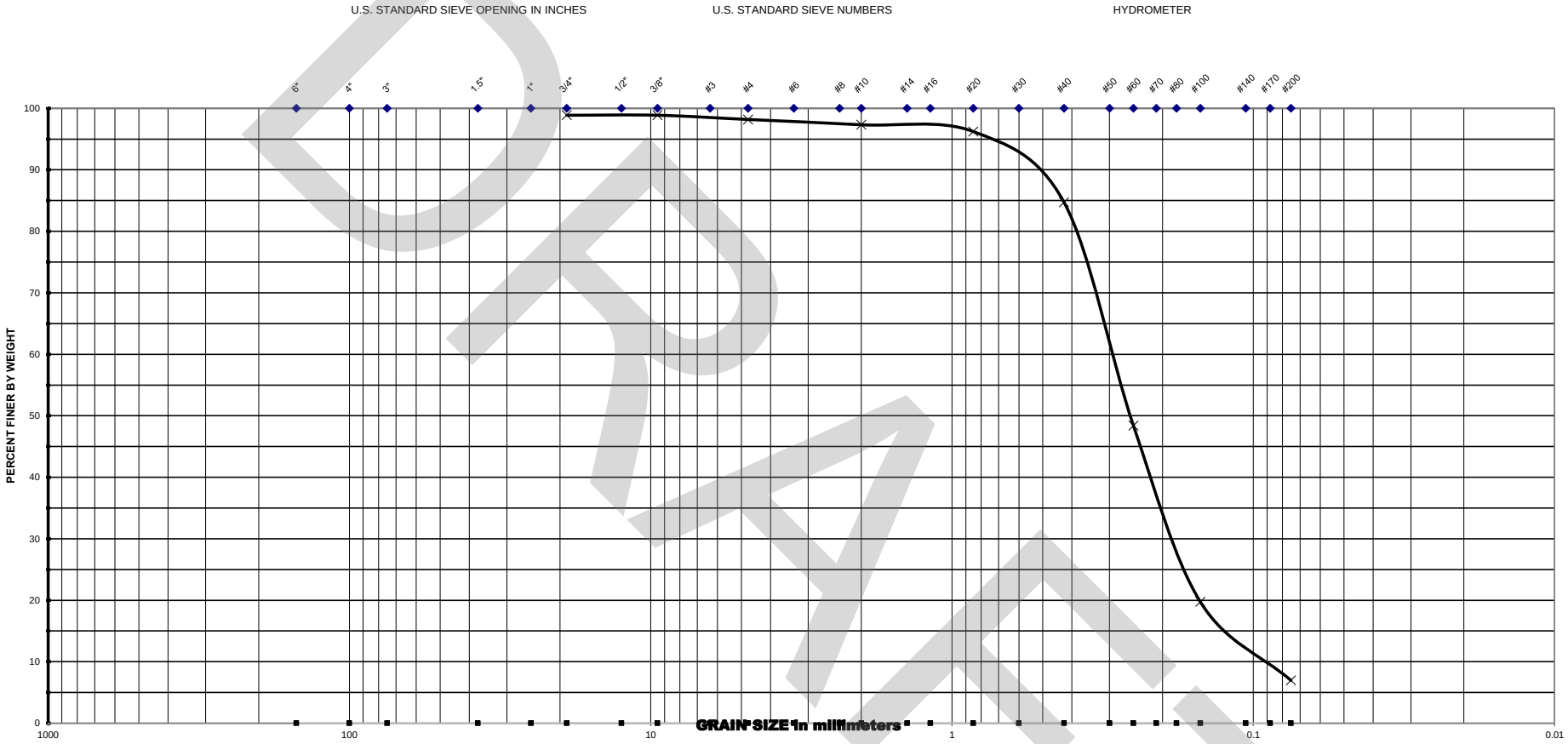
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-313	4.0 - 6.0	A-3	12.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	98.0
#40	72.2
#60	25.0
#100	7.0
#200	2.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-314	4.0 - 6.0	A-3	11.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	98.9
3/8"	98.9
#4	98.2
#10	97.3
#20	96.2
#40	84.7
#60	48.4
#100	19.8
#200	7.0

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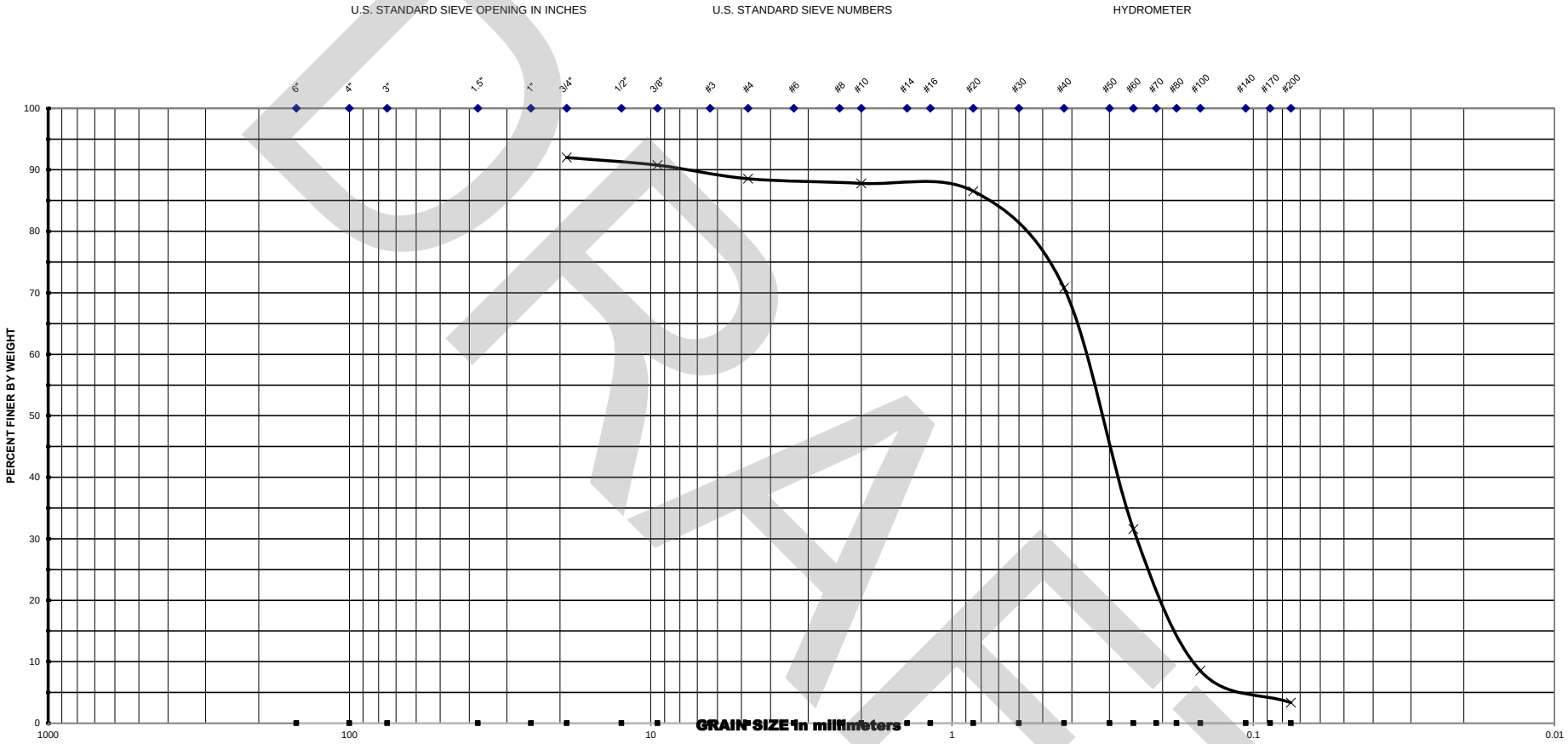
Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

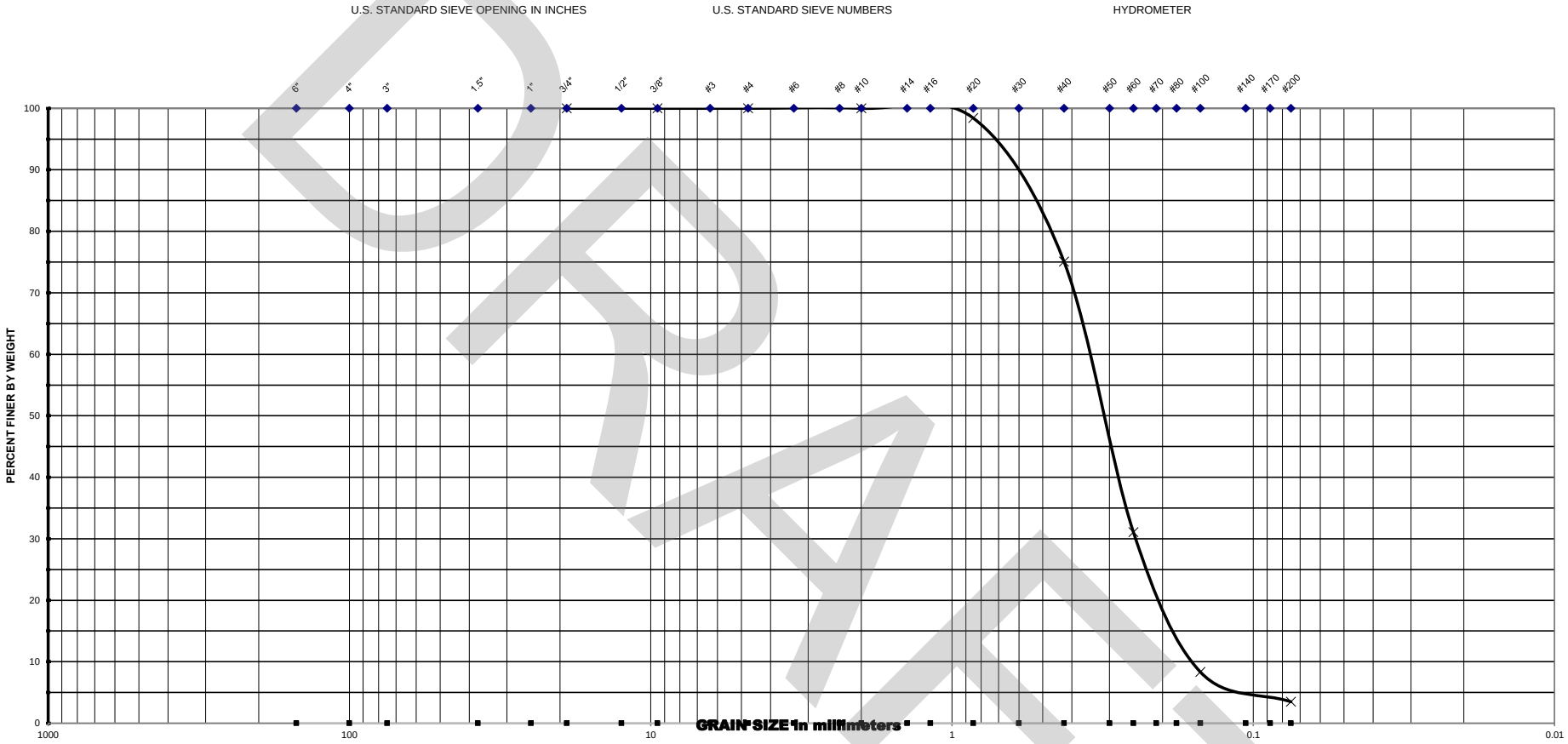
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-314	8.0 - 10.0	A-3	17.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	92.0
3/8"	90.8
#4	88.6
#10	87.8
#20	86.5
#40	70.8
#60	31.6
#100	8.5
#200	3.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

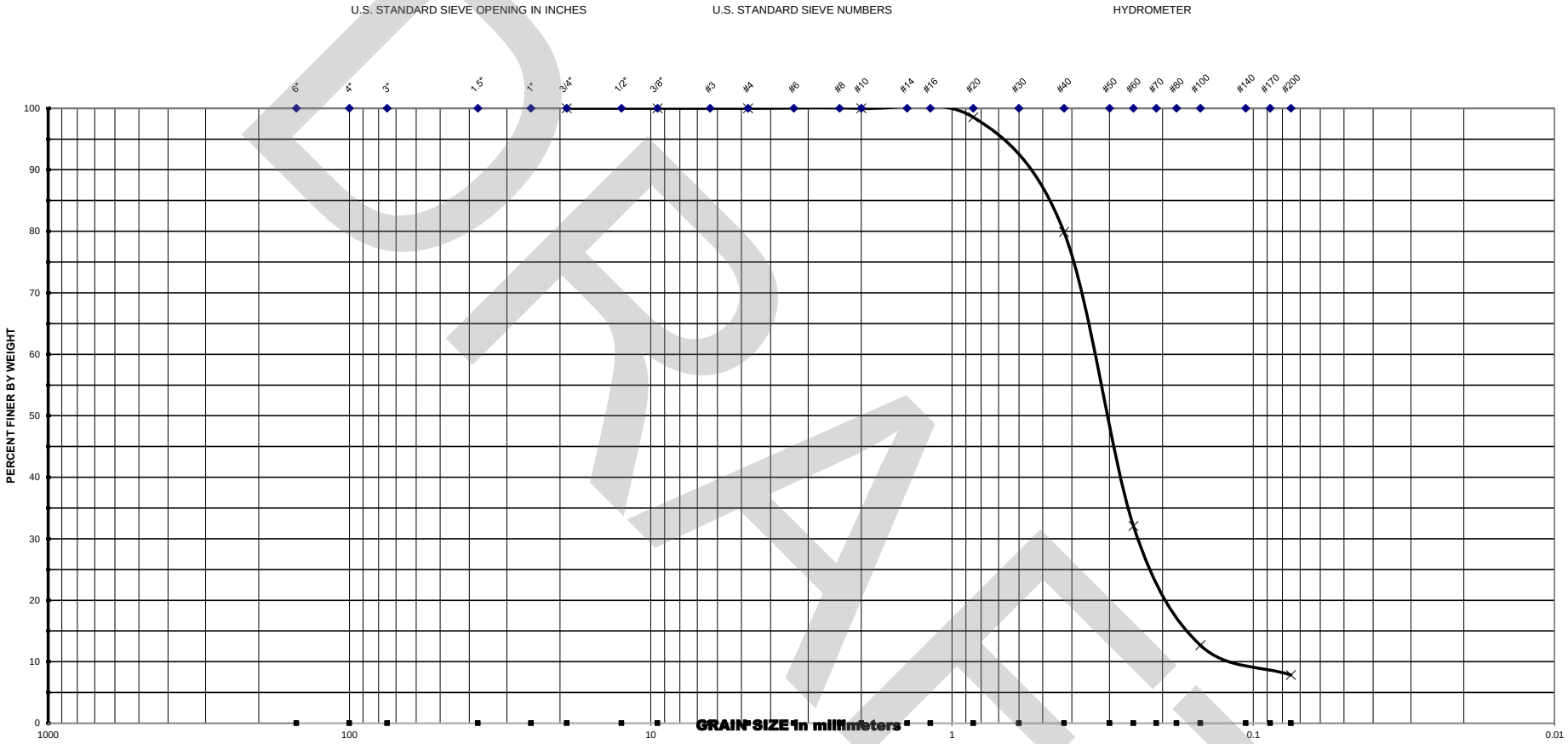
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-315	6.0 - 8.0	A-3	14.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	98.4
#40	75.1
#60	31.1
#100	8.3
#200	3.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

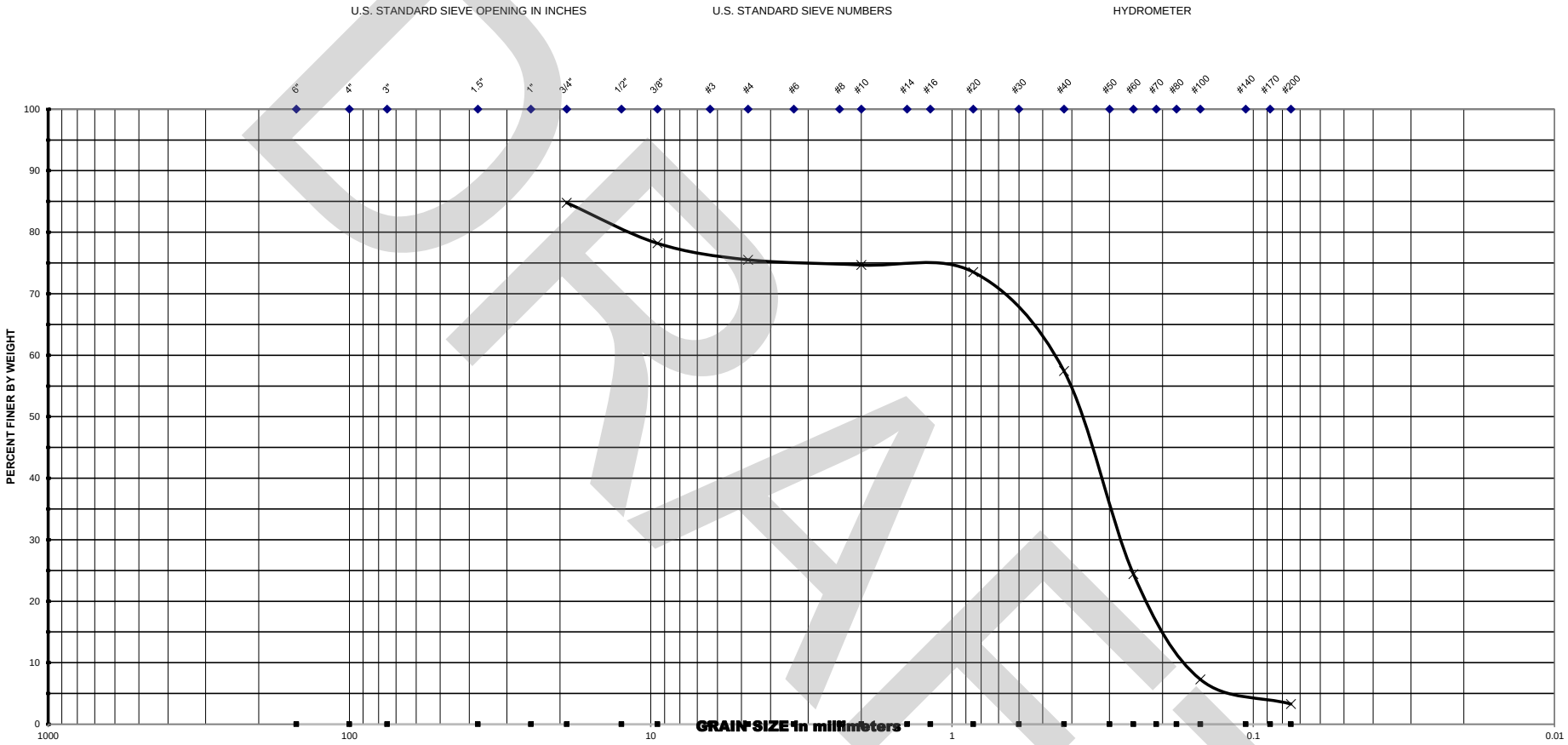
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-316	4.0 - 6.0	A-3	17.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	98.6
#40	79.9
#60	32.1
#100	12.7
#200	7.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

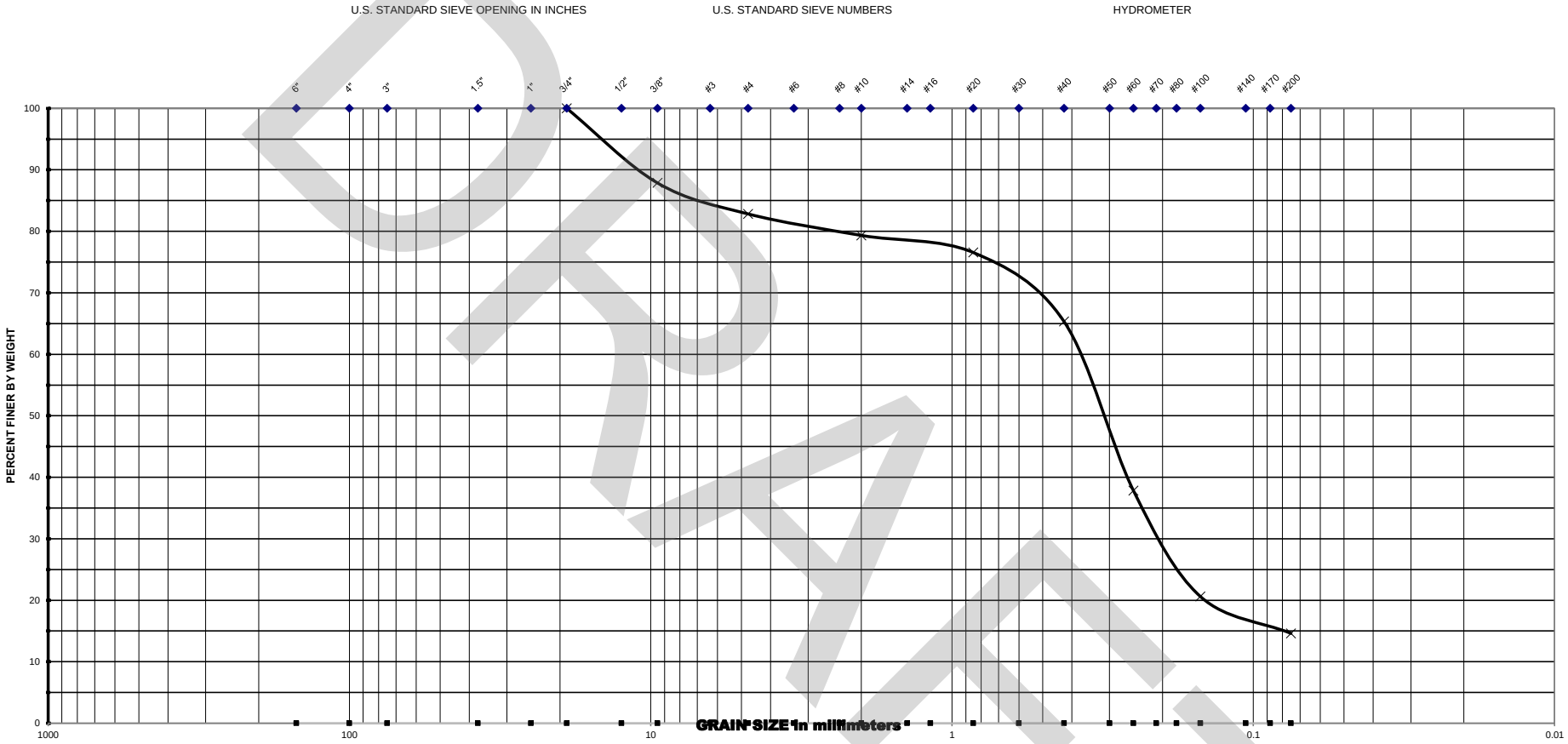
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-316	6.0 - 8.0	A-3	10.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	84.8
3/8"	78.2
#4	75.5
#10	74.7
#20	73.5
#40	57.4
#60	24.4
#100	7.3
#200	3.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

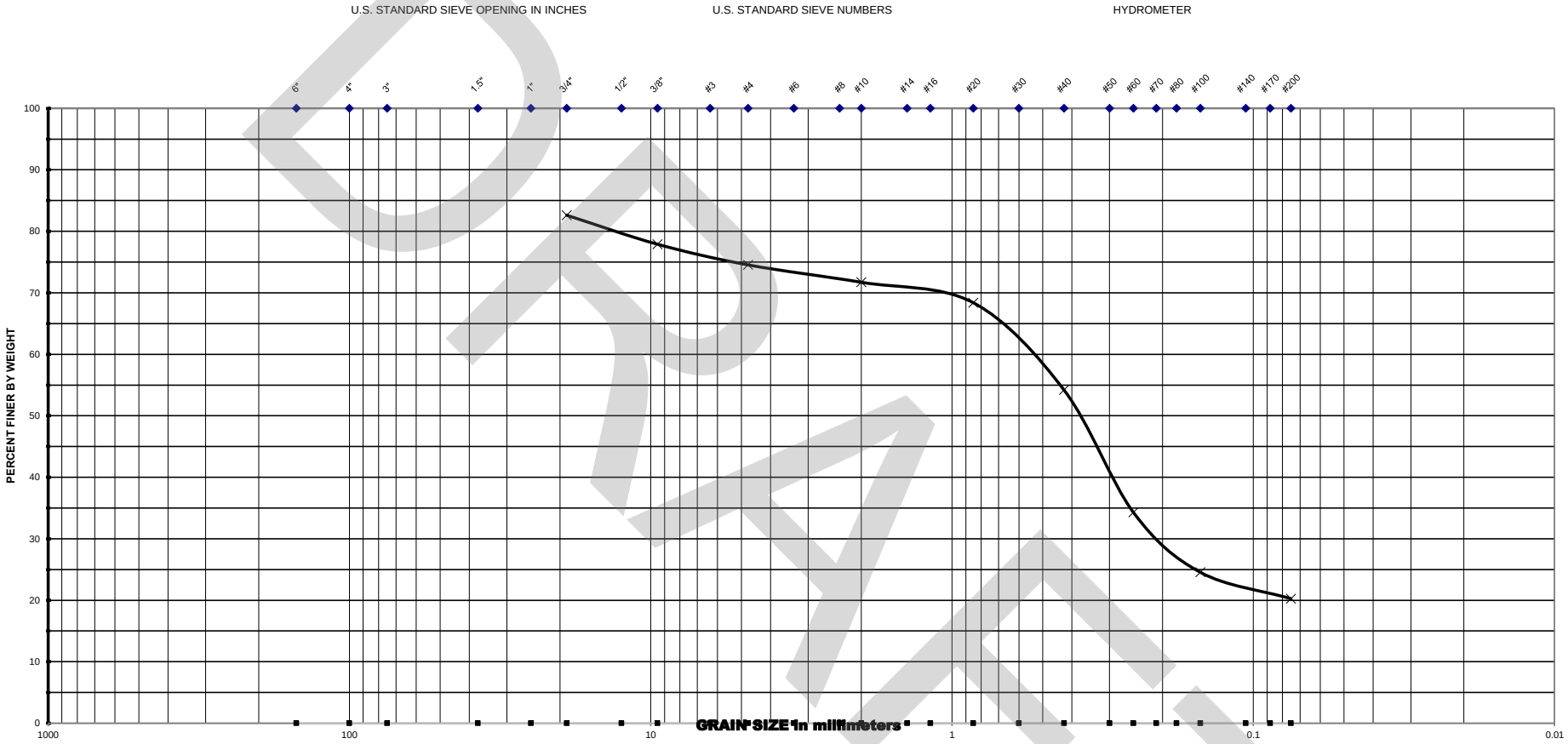
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-317	0.0 - 2.0	A-2-4	1.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	87.9
#4	82.8
#10	79.3
#20	76.6
#40	65.3
#60	37.8
#100	20.6
#200	14.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

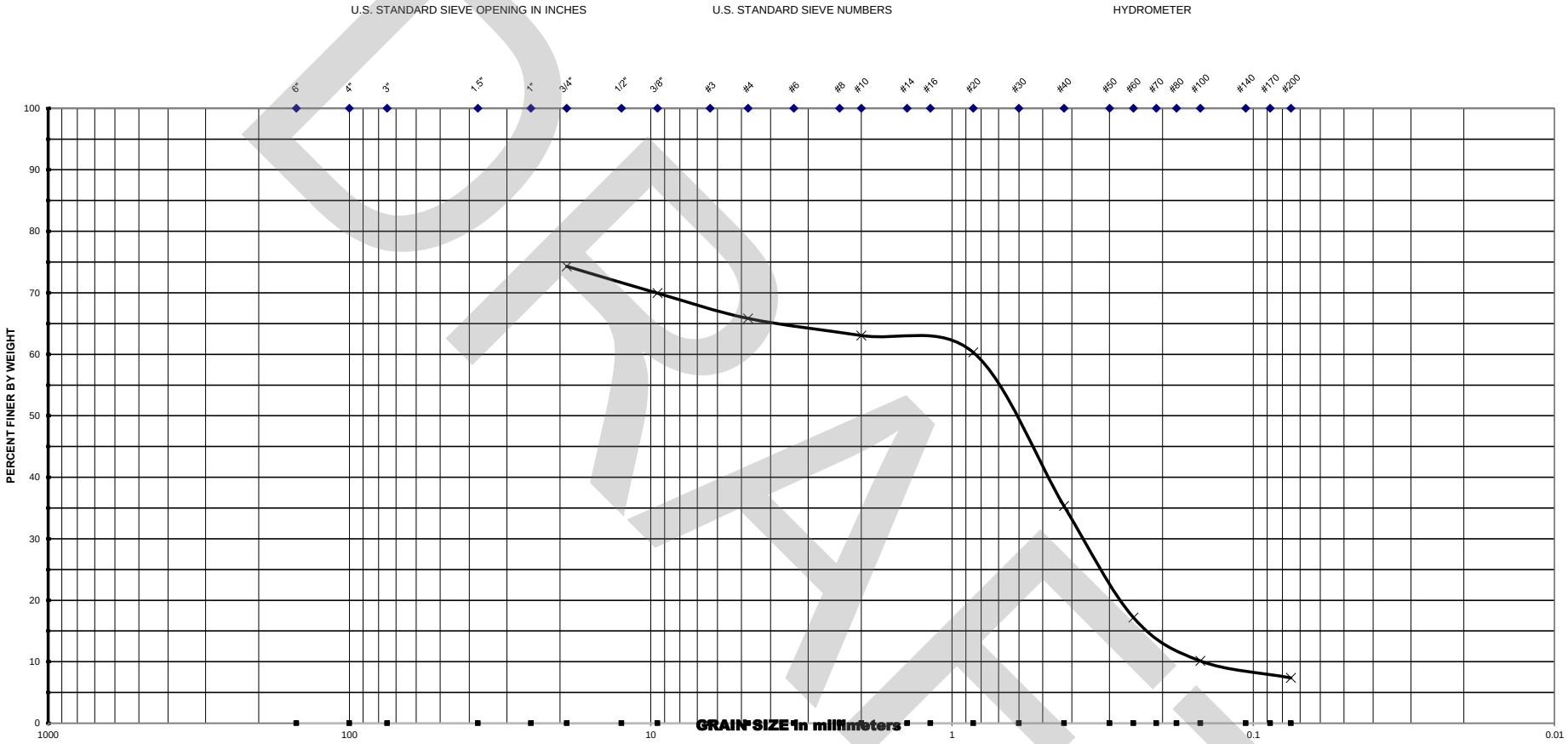
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-318	0.0 - 2.0	A-2-4	12.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	82.6
3/8"	77.9
#4	74.5
#10	71.7
#20	68.4
#40	54.2
#60	34.3
#100	24.6
#200	20.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/17/2018

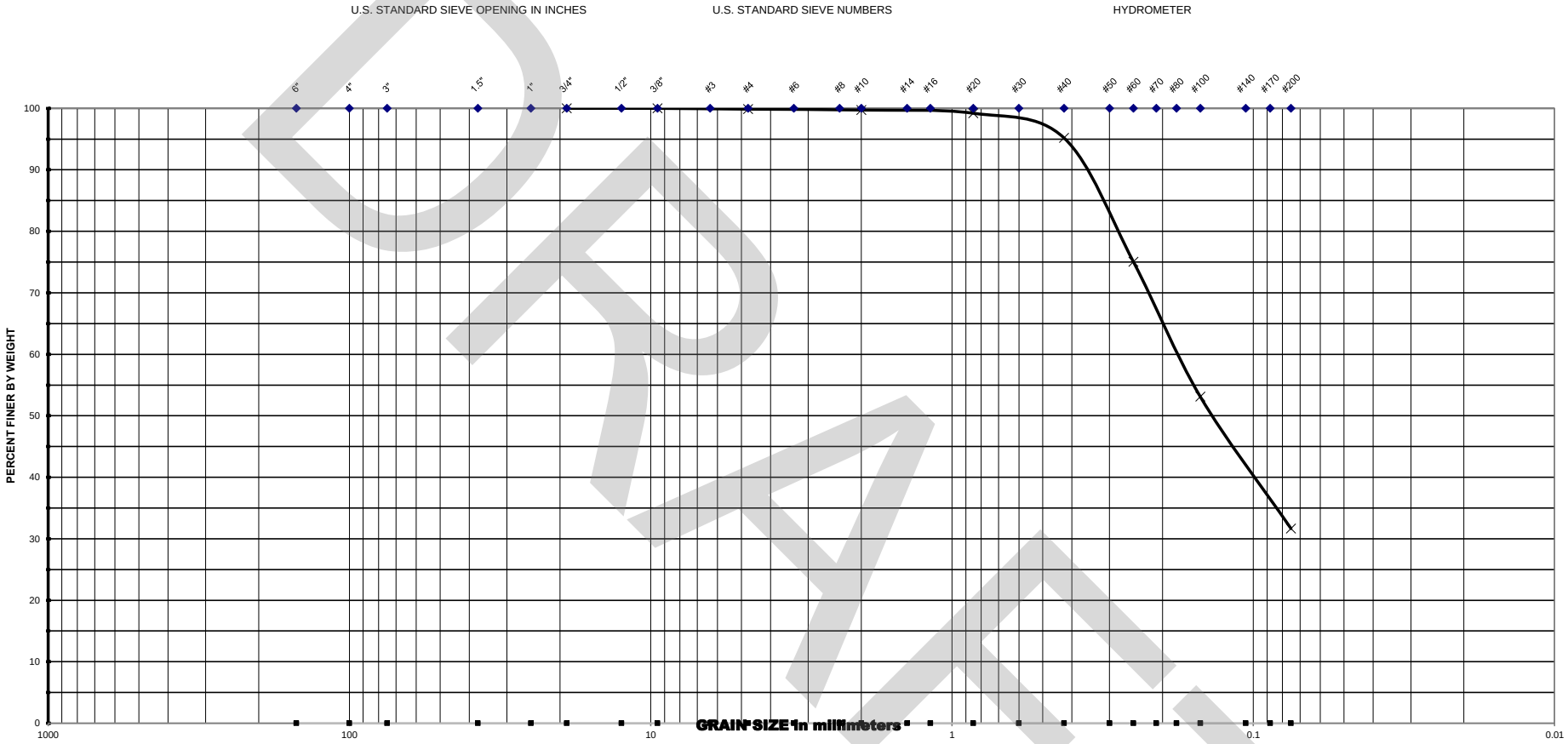
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-318	8.0 - 10.0	A-1-b	18.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	74.3
3/8"	69.9
#4	65.8
#10	63.1
#20	60.3
#40	35.3
#60	17.2
#100	10.1
#200	7.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

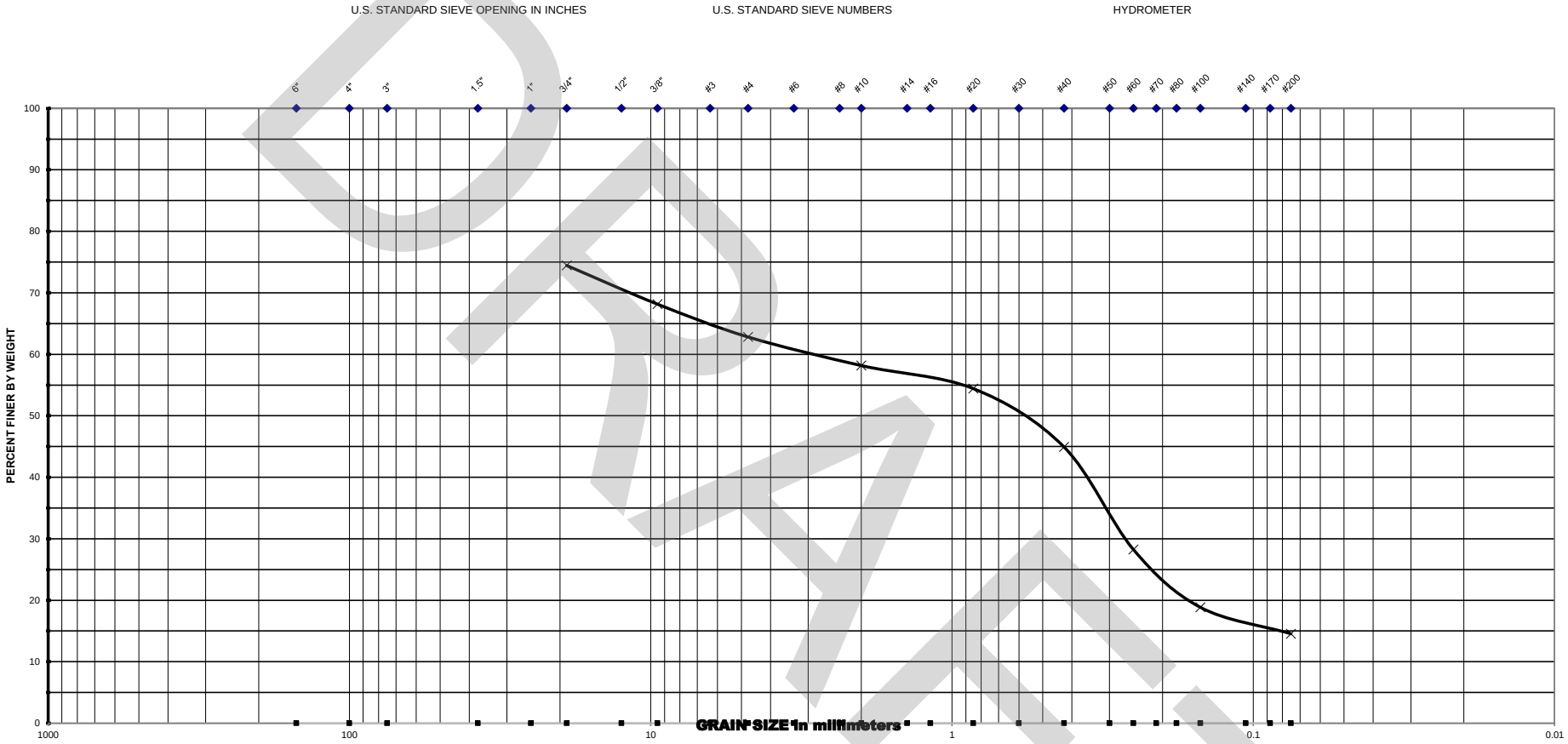
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-319	8.0 - 10.0	A-2-4	26.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.7
#20	99.2
#40	95.2
#60	75.0
#100	53.1
#200	31.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 9/19/2017

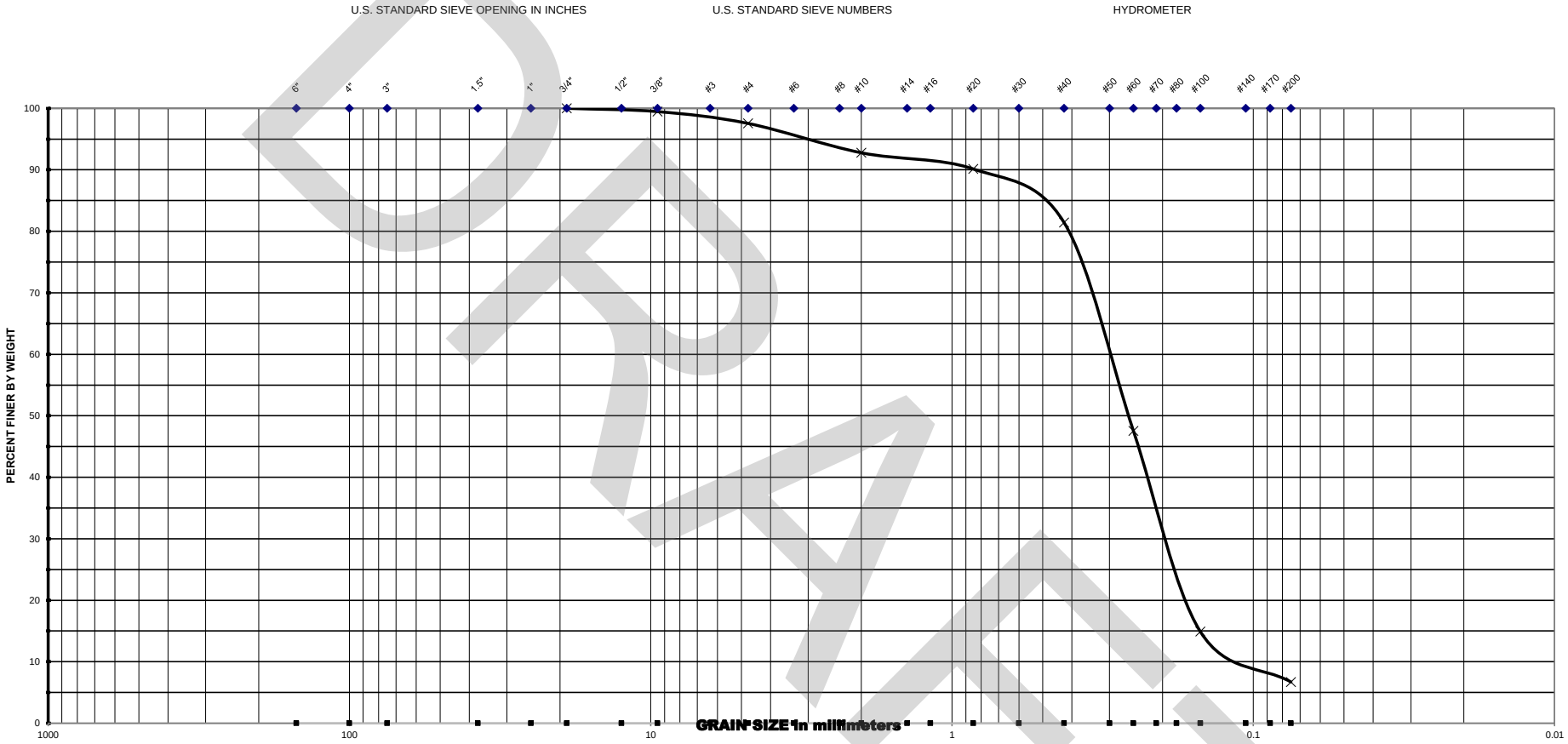
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
R-321	4.0 - 6.0	A-1-b	15.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	74.4
3/8"	68.2
#4	62.8
#10	58.2
#20	54.4
#40	44.9
#60	28.2
#100	18.9
#200	14.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

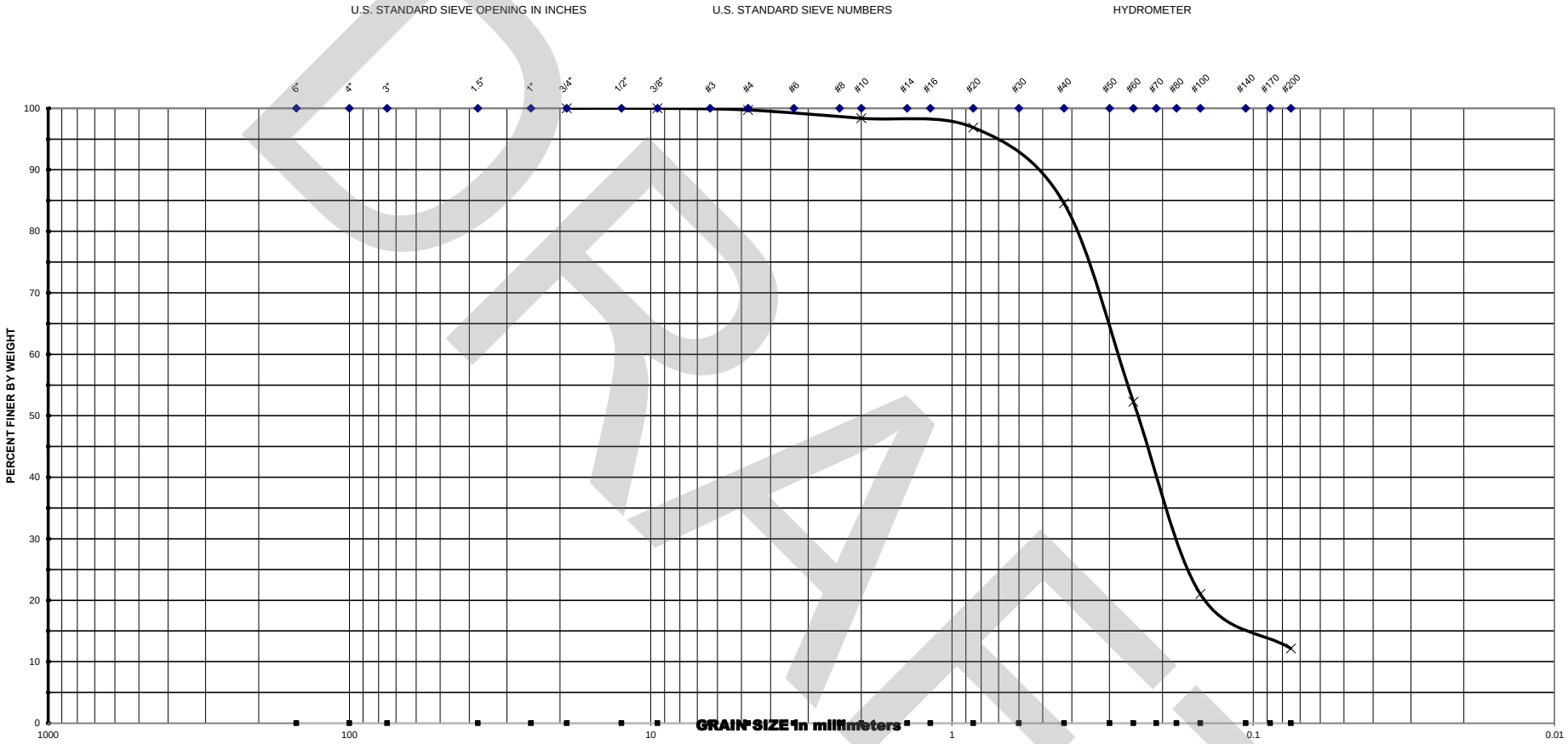
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-1	8.0 - 10.0	A-3	20.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.5
#4	97.5
#10	92.8
#20	90.1
#40	81.4
#60	47.5
#100	14.9
#200	6.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/22/2018

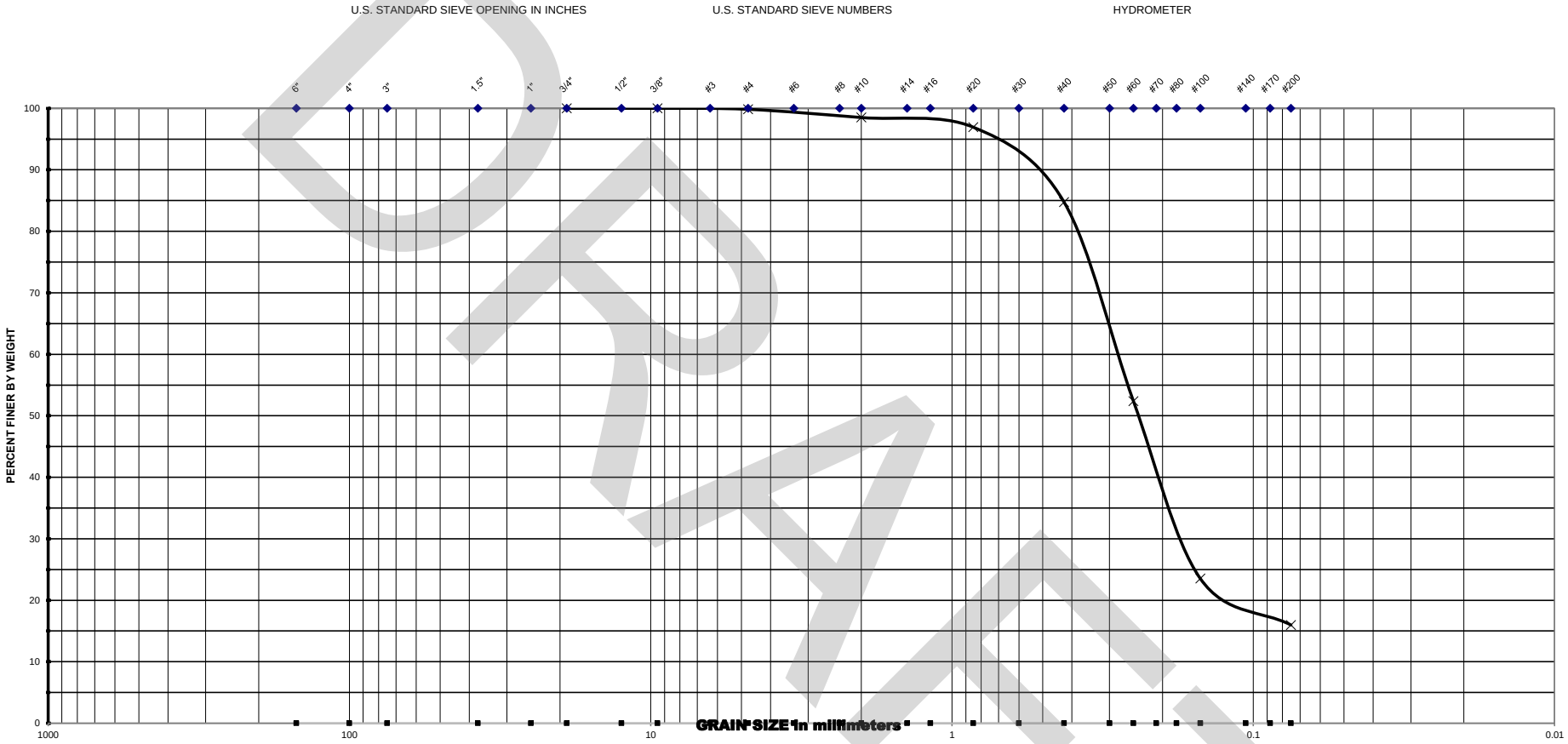
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-1	12.0 - 13.5	A-2-4	20.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.7
#10	98.4
#20	96.9
#40	84.6
#60	52.3
#100	21.0
#200	12.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

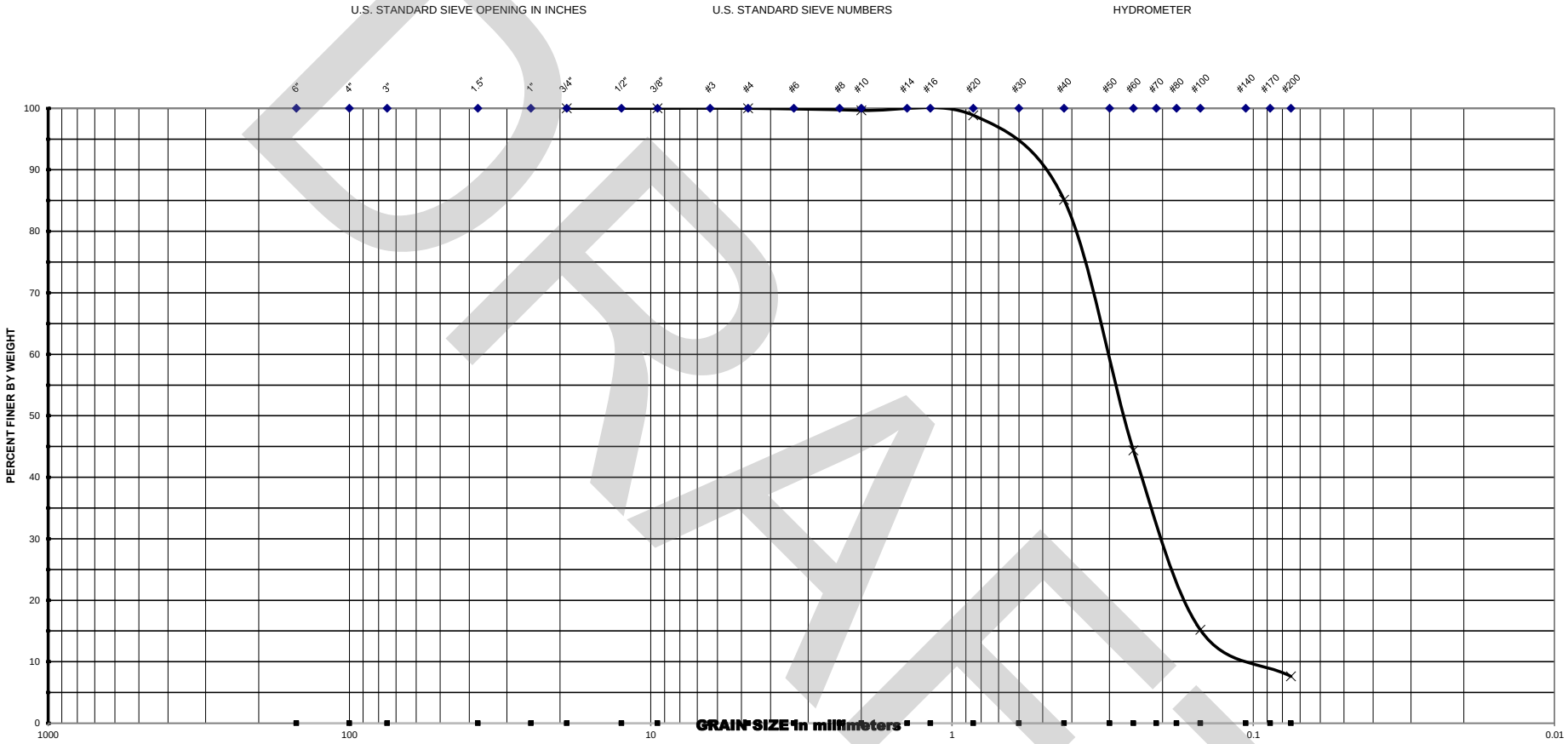
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-1	13.5 - 15.0	A-2-4	21.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.8
#10	98.5
#20	96.9
#40	84.8
#60	52.4
#100	23.5
#200	16.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

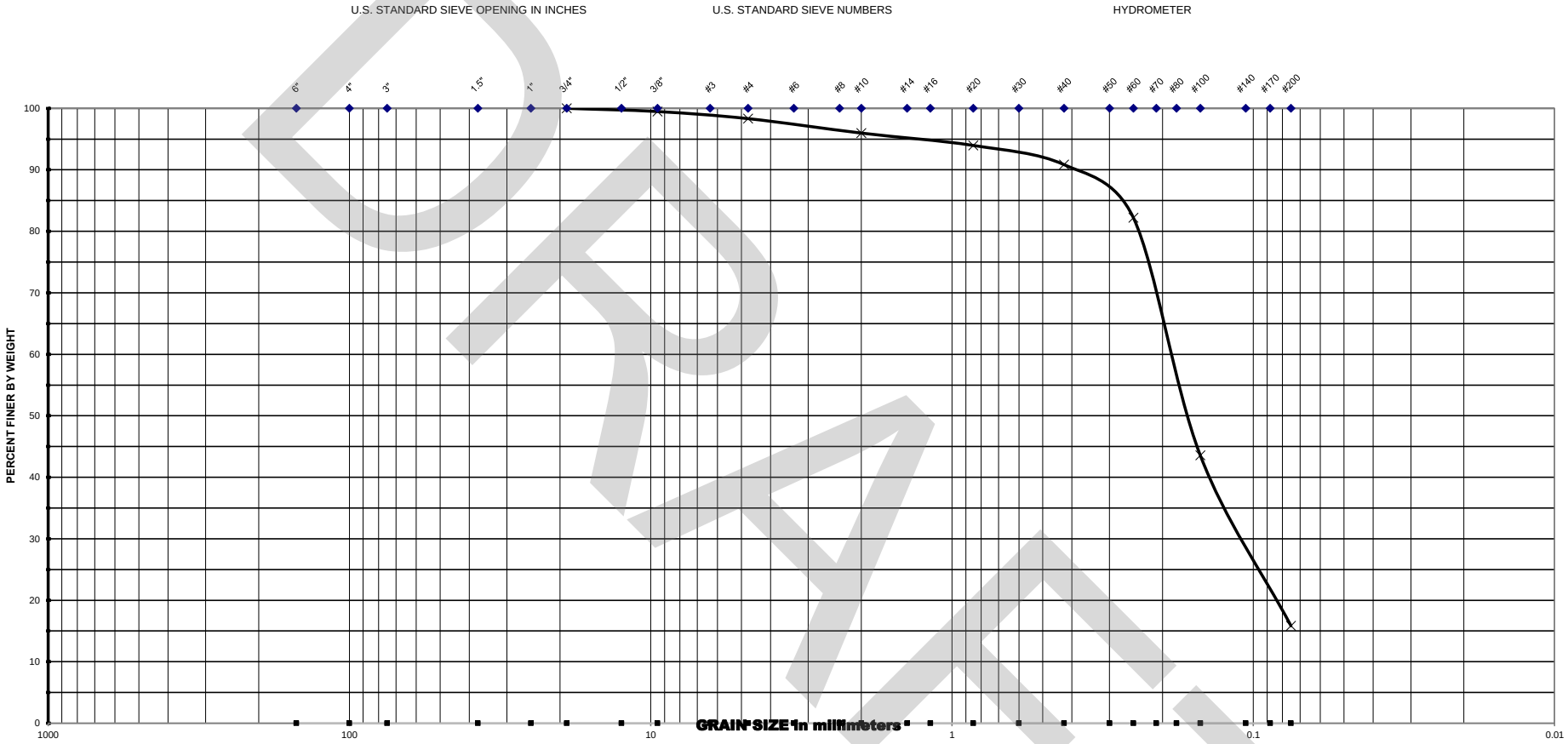
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-2	13.5 - 15.0	A-3	22.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	99.7
#20	98.9
#40	85.1
#60	44.4
#100	15.2
#200	7.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

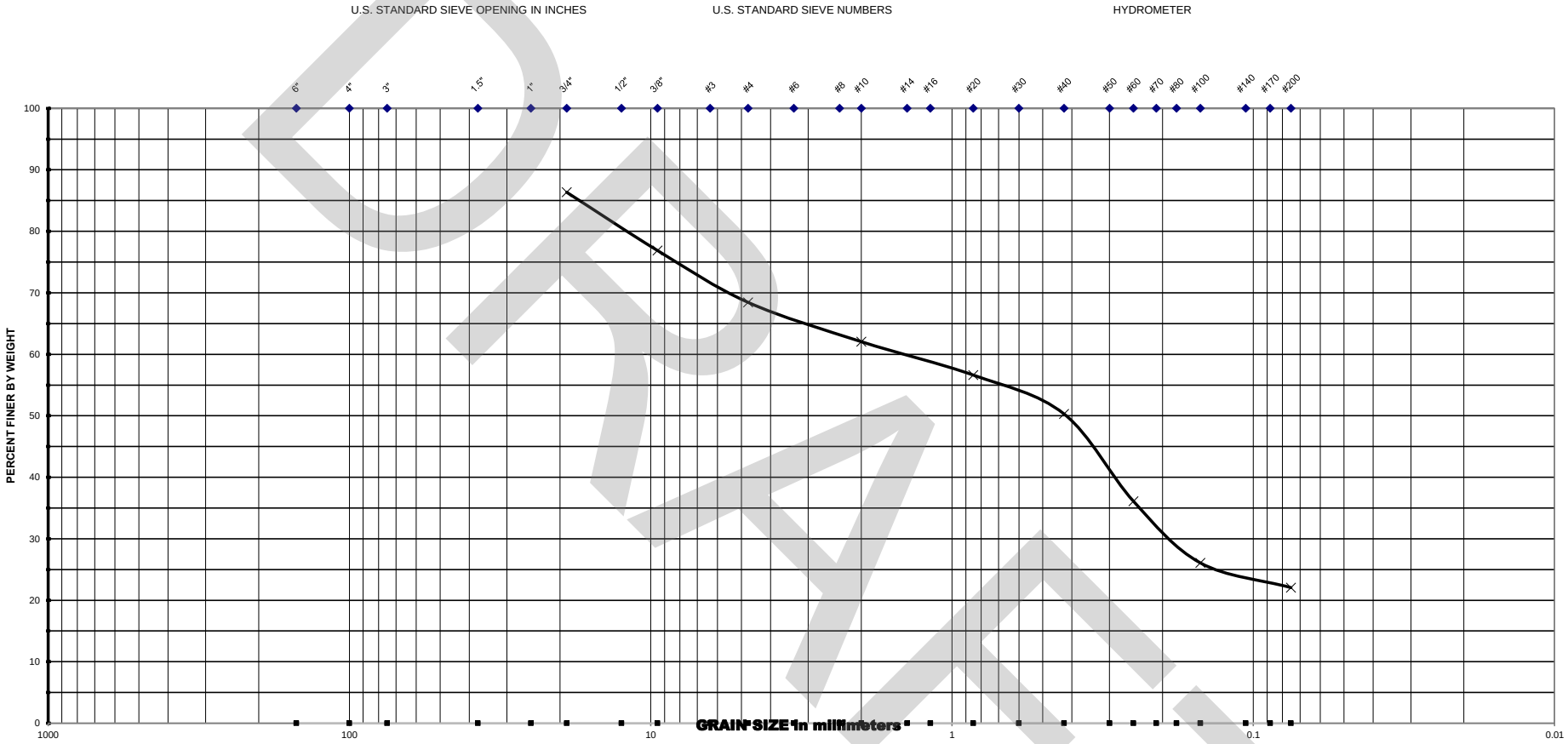
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-2	15.0 - 20.0	A-2-4	23.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.5
#4	98.3
#10	96.0
#20	94.0
#40	90.8
#60	82.2
#100	43.6
#200	15.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

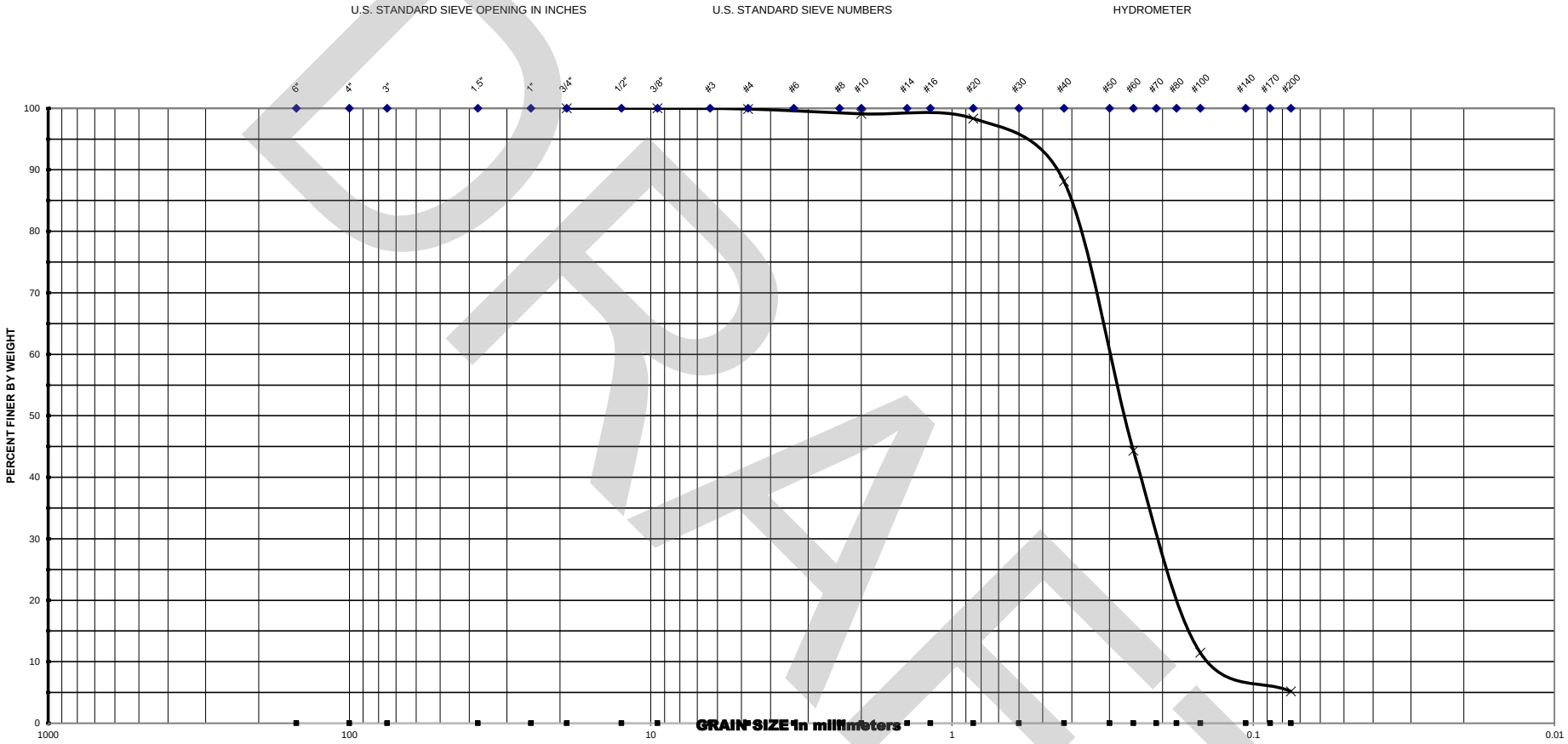
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-3	0.0 - 2.0	A-1-b	12.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	86.3
3/8"	76.9
#4	68.4
#10	62.1
#20	56.6
#40	50.3
#60	36.1
#100	26.1
#200	22.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

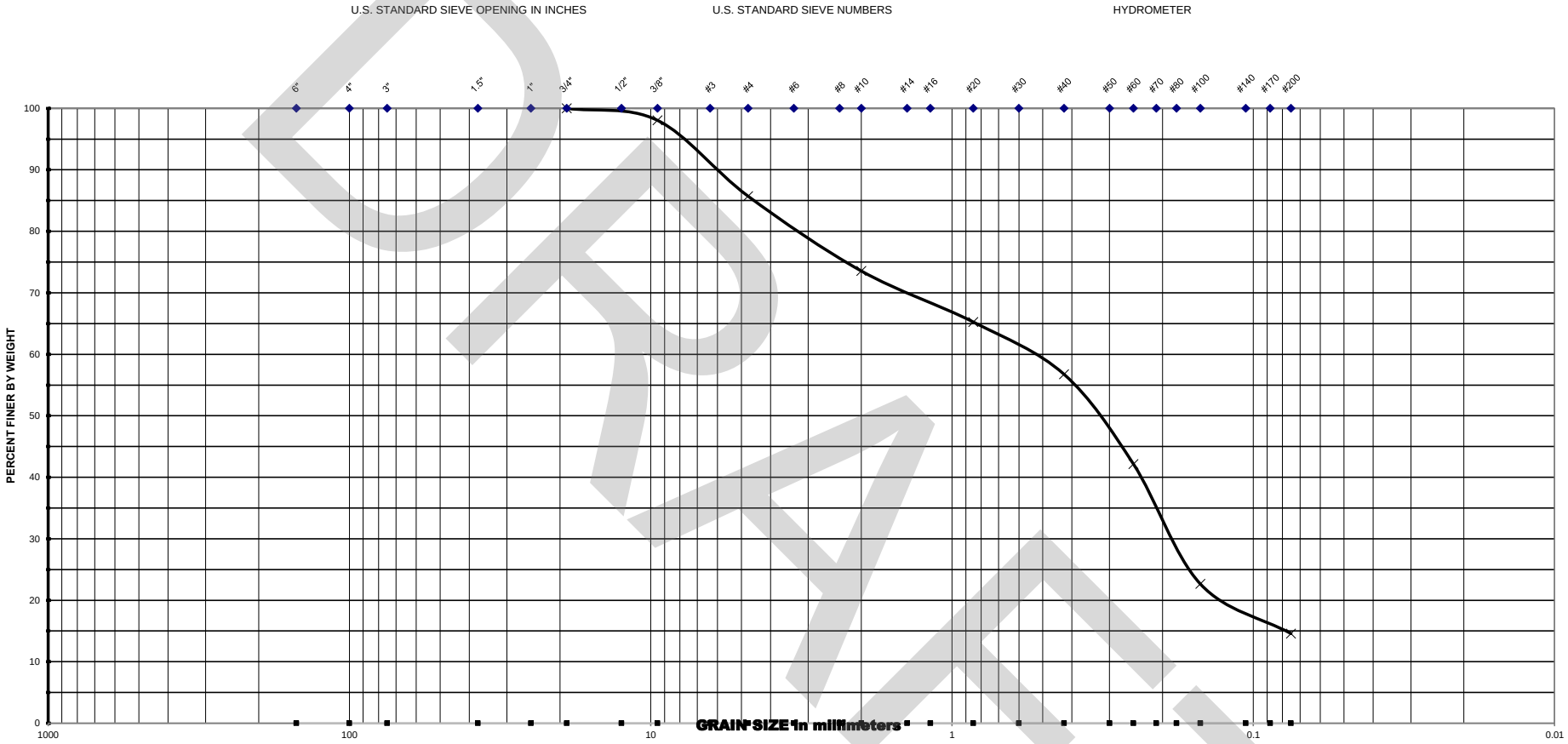
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-3	10.0 - 12.0	A-3	22.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.1
#20	98.3
#40	88.1
#60	44.3
#100	11.5
#200	5.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

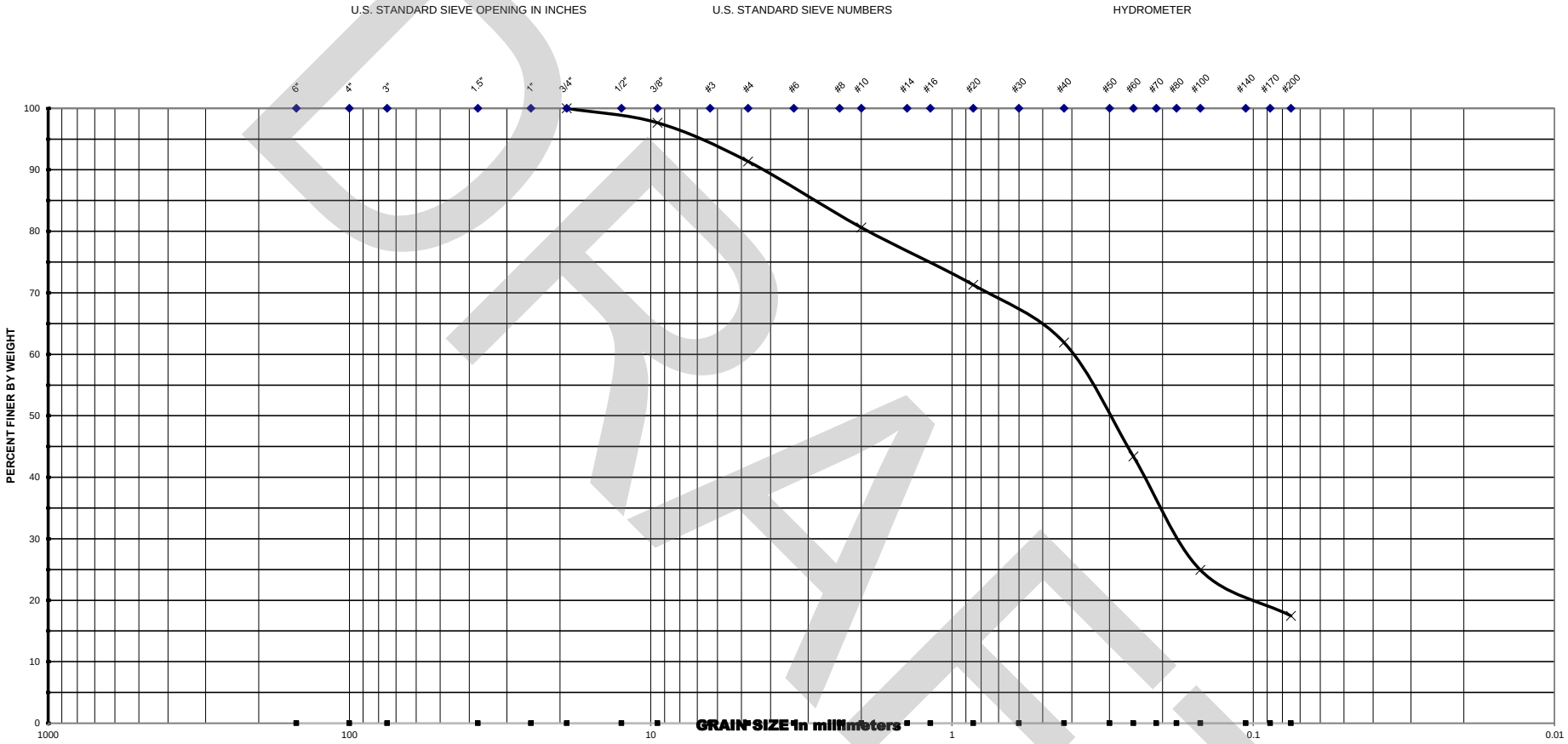
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-3	12.0 - 13.5	A-2-4	19.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	98.1
#4	85.7
#10	73.5
#20	65.3
#40	56.8
#60	42.2
#100	22.7
#200	14.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

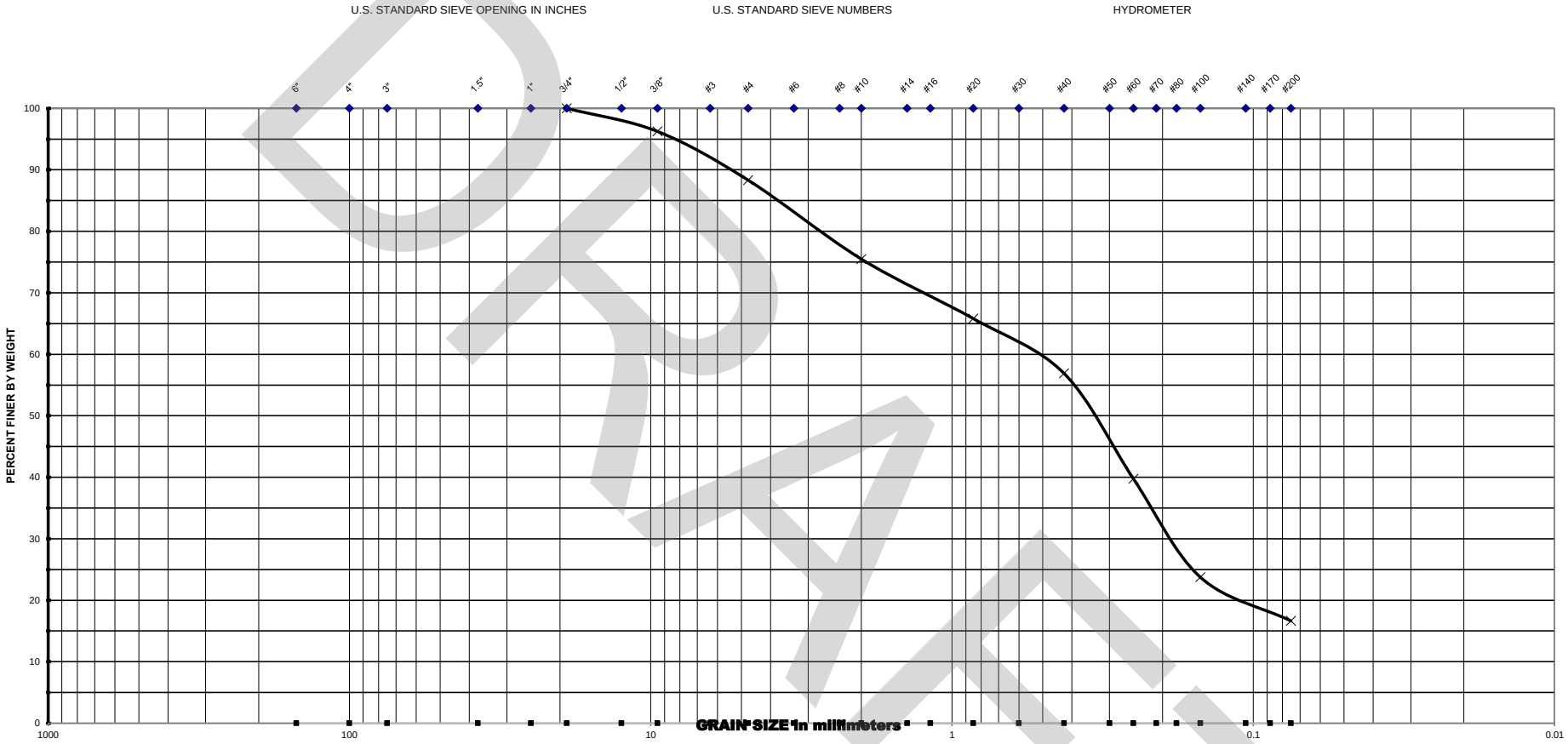
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-4	12.0 - 13.5	A-2-4	20.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	97.7
#4	91.4
#10	80.6
#20	71.3
#40	61.9
#60	43.4
#100	24.9
#200	17.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

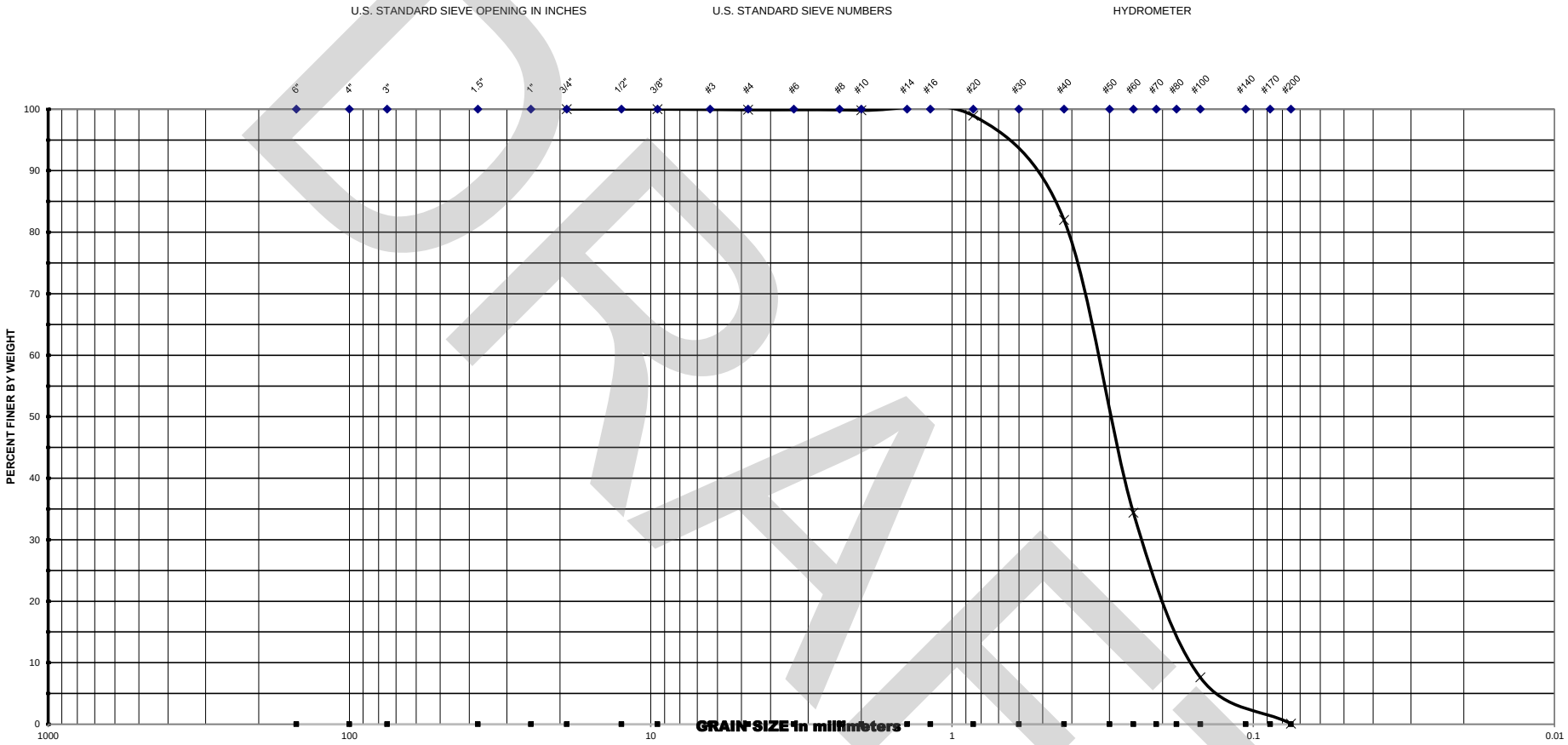
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-4	13.5 - 15.0	A-2-4	17.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.2
#4	88.3
#10	75.5
#20	65.8
#40	56.9
#60	39.8
#100	23.8
#200	16.6

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

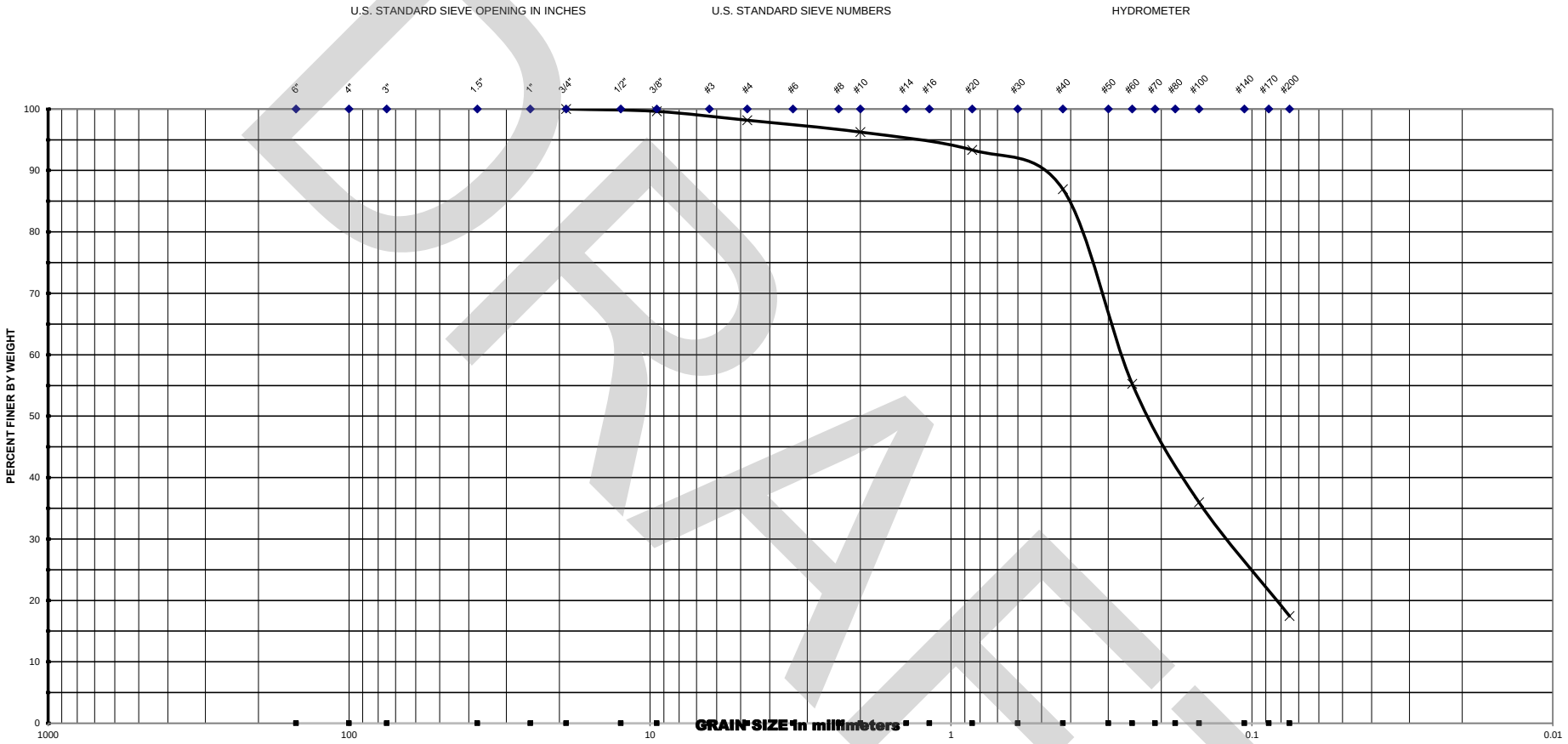
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-5	6.0 - 8.0	A-3	21.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.8
#20	98.9
#40	82.0
#60	34.4
#100	7.6
#200	0.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

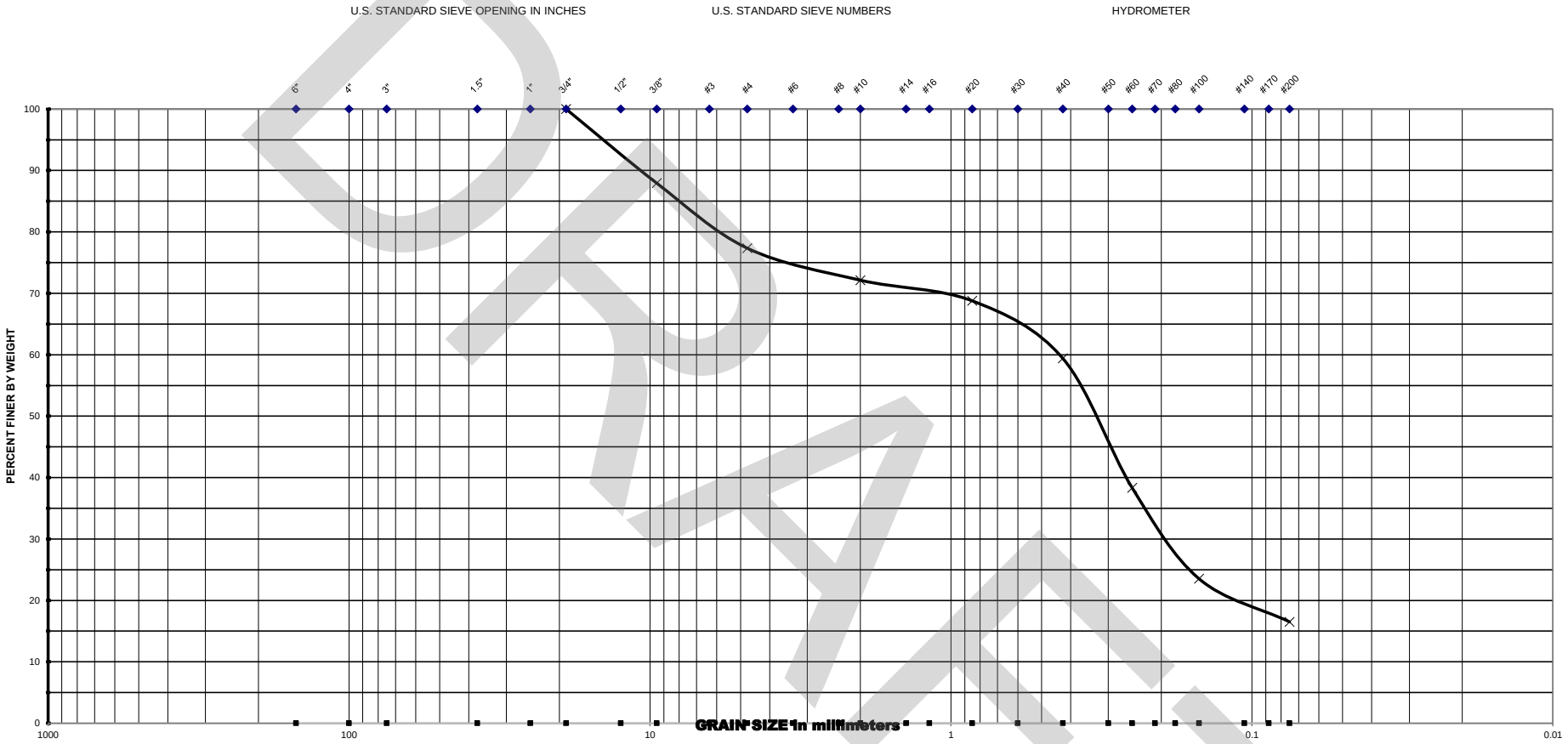
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-5	15.0 - 20.0	A-2-4	24.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.6
#4	98.2
#10	96.2
#20	93.3
#40	87.0
#60	55.3
#100	36.0
#200	17.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

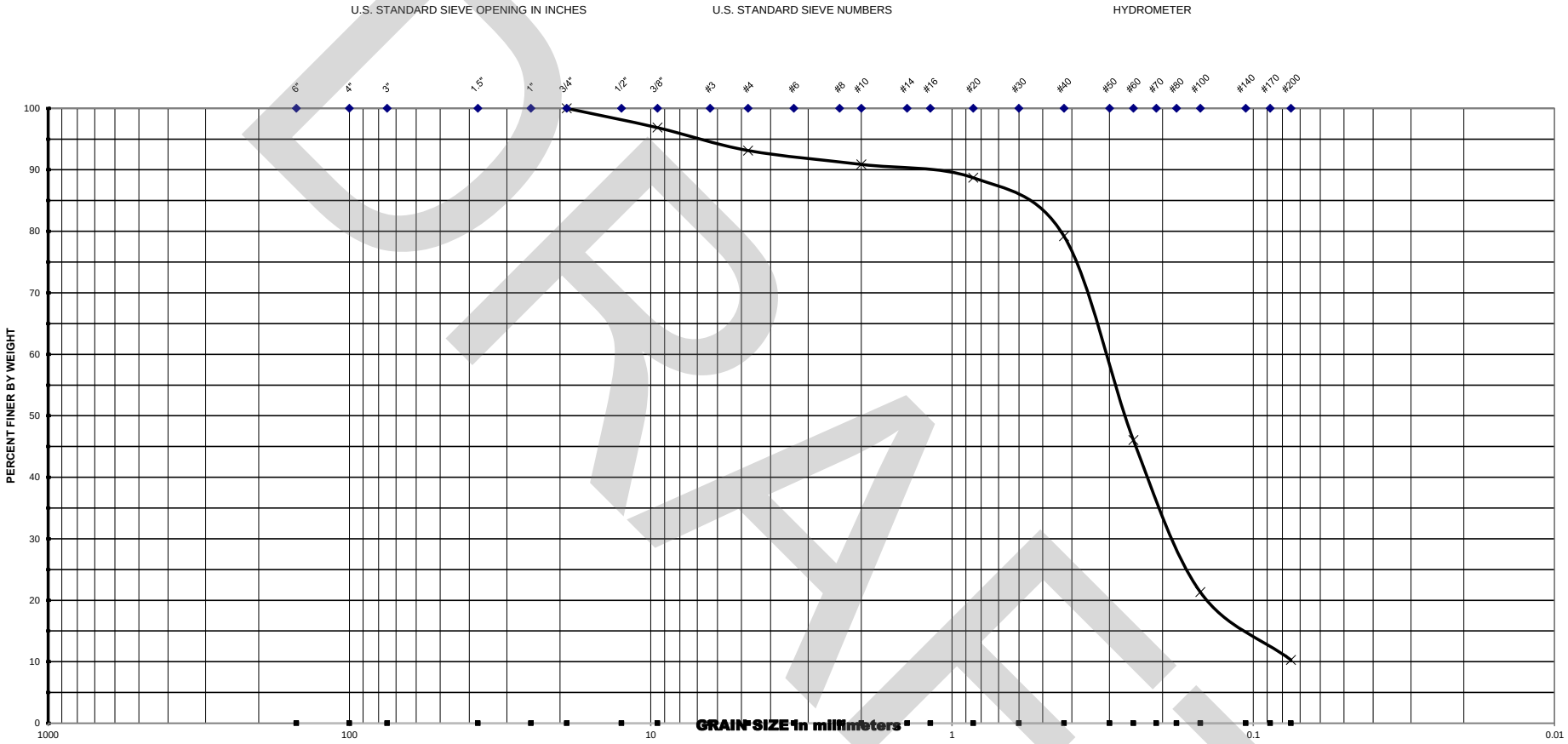
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-6	0.0 - 2.0	A-2-4	20.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	87.9
#4	77.3
#10	72.1
#20	68.8
#40	59.4
#60	38.3
#100	23.5
#200	16.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

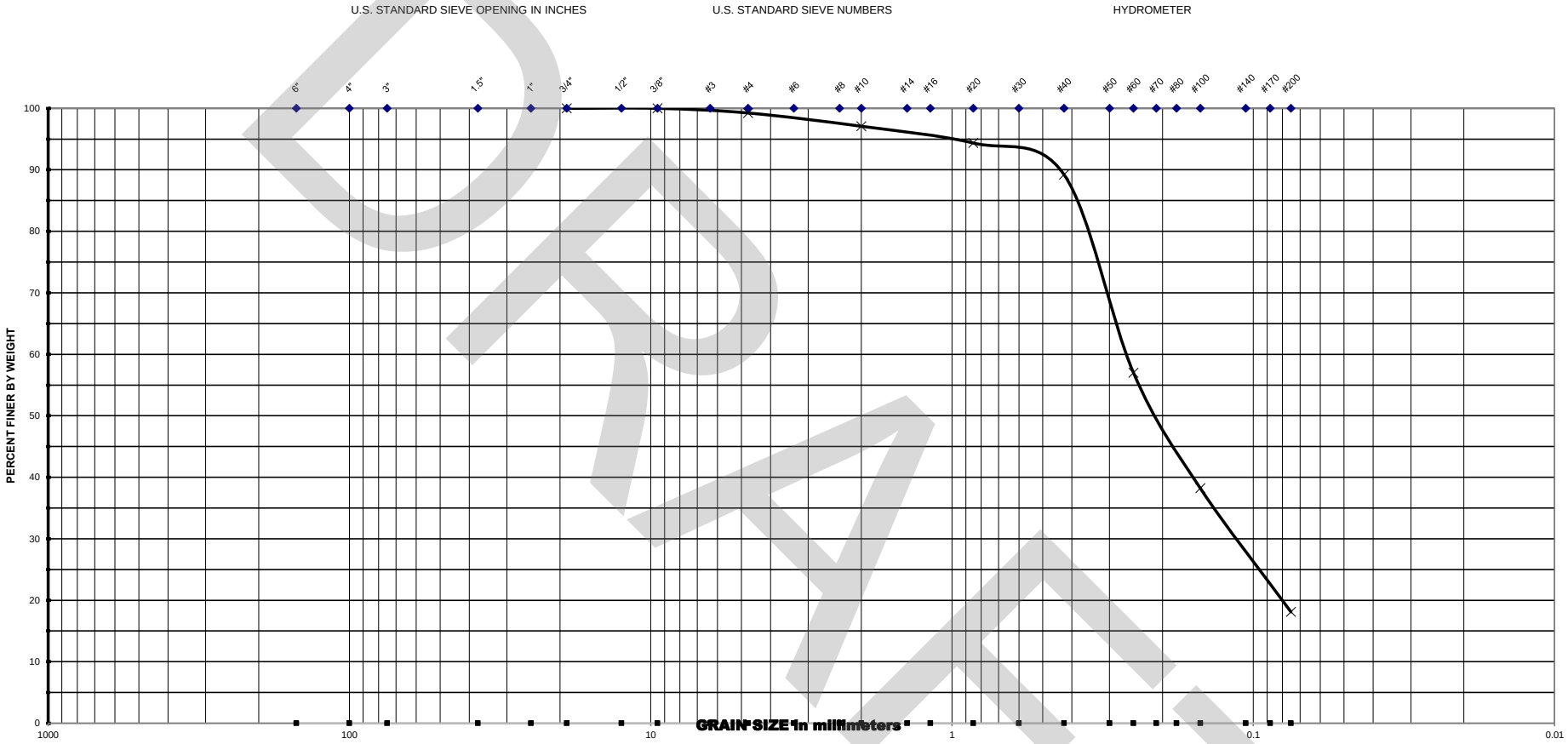
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-6	8.0 - 10.0	A-3	17.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.9
#4	93.1
#10	90.9
#20	88.7
#40	79.2
#60	46.0
#100	21.3
#200	10.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

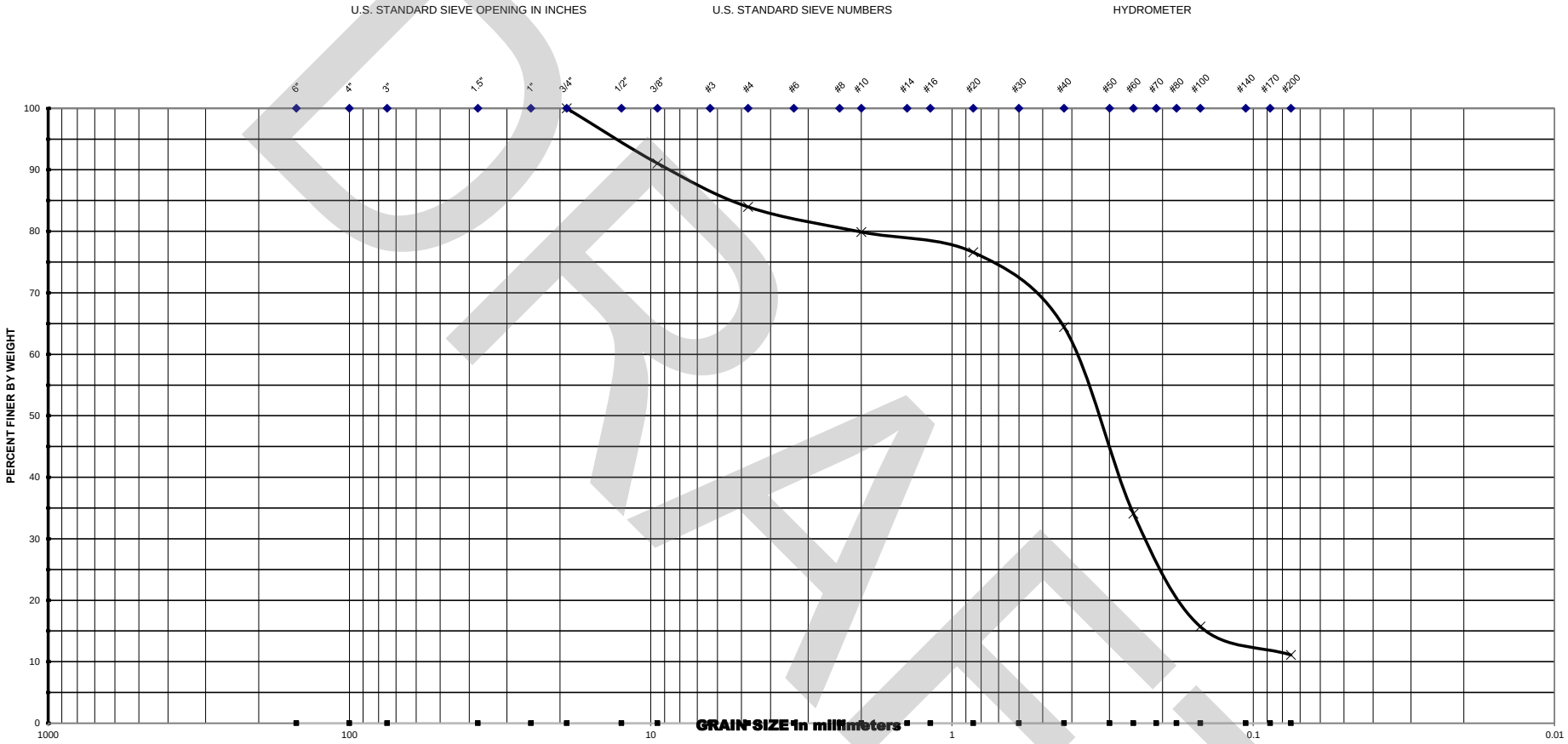
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-6	15.0 - 20.0	A-2-4	23.9	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.2
#10	97.1
#20	94.4
#40	89.2
#60	57.0
#100	38.2
#200	18.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

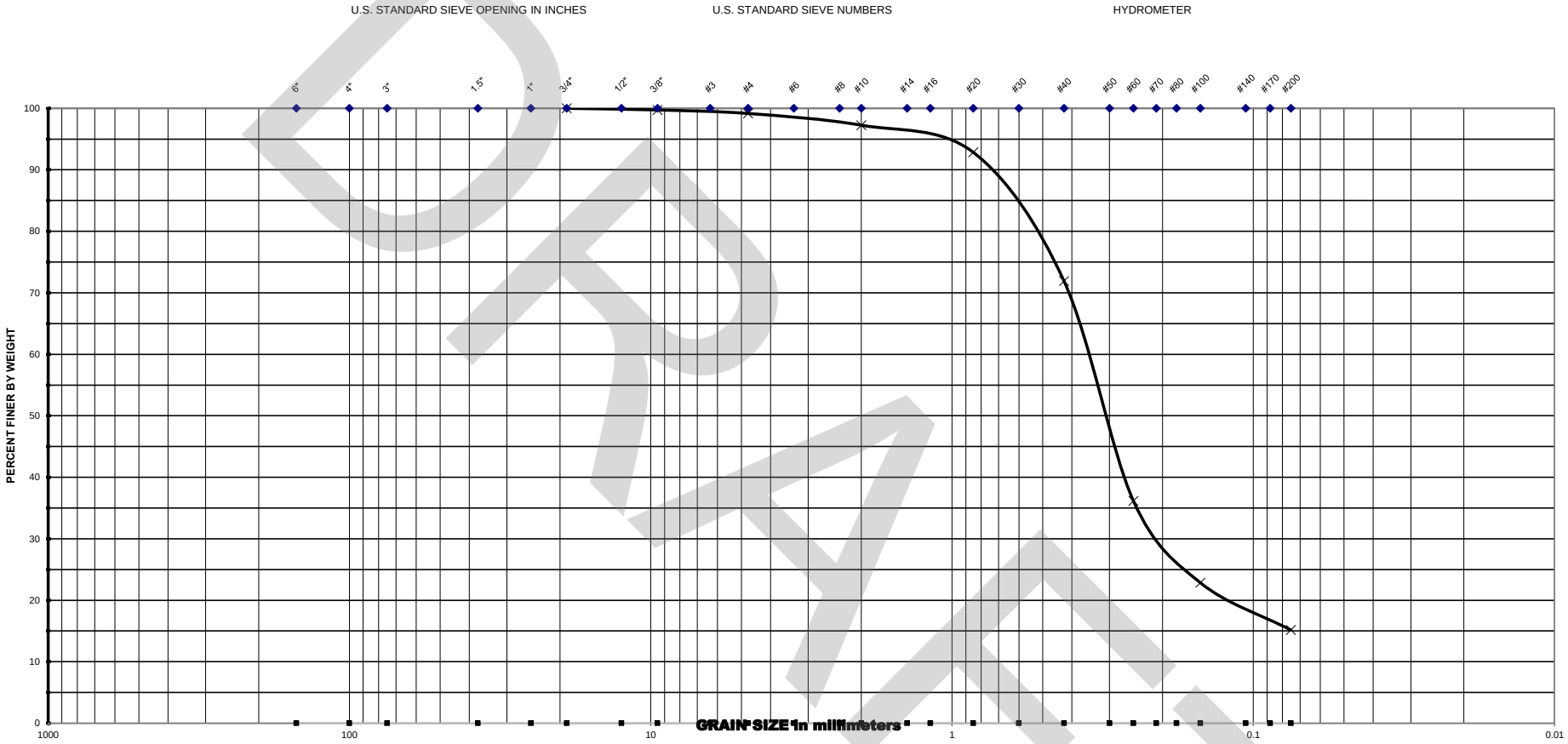
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-7	4.0 - 6.0	A-2-4	18.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	91.1
#4	84.0
#10	79.9
#20	76.6
#40	64.4
#60	34.1
#100	15.7
#200	11.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

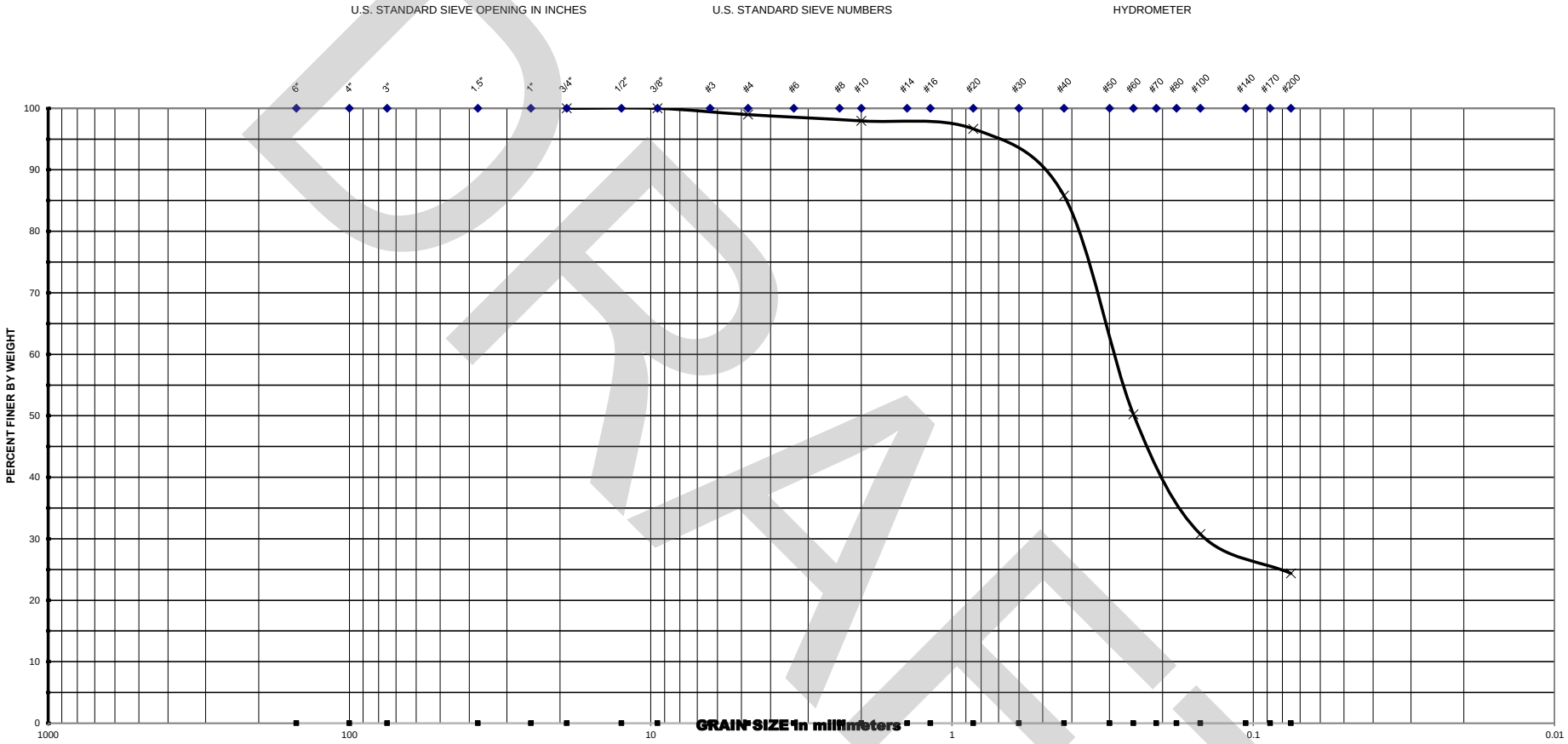
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-7	12.0 - 13.5	A-2-4	18.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	99.7
#4	99.2
#10	97.3
#20	92.8
#40	71.9
#60	36.1
#100	22.9
#200	15.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

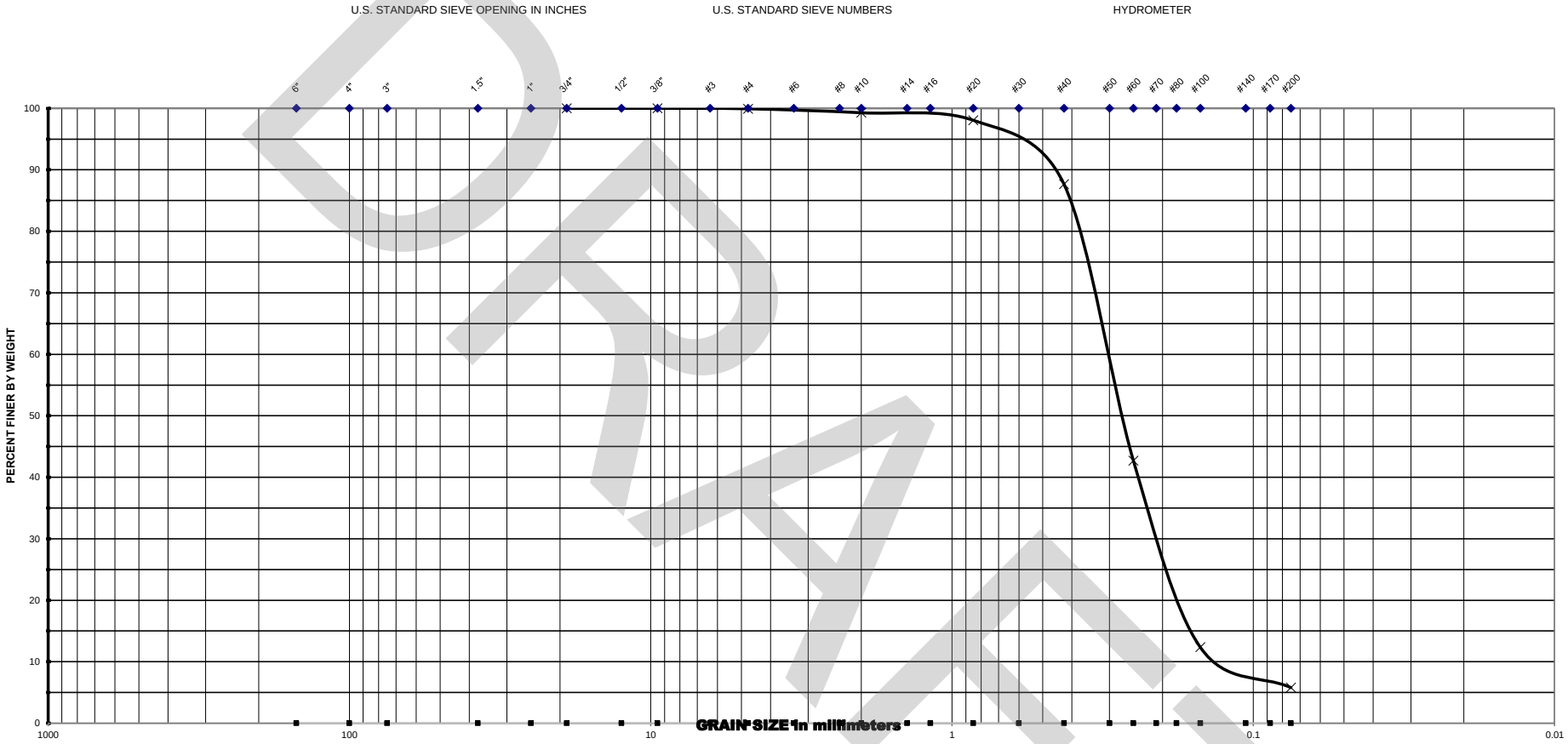
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-8	2.0 - 4.0	A-2-4	21.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.0
#10	98.0
#20	96.7
#40	85.8
#60	50.2
#100	30.8
#200	24.4

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

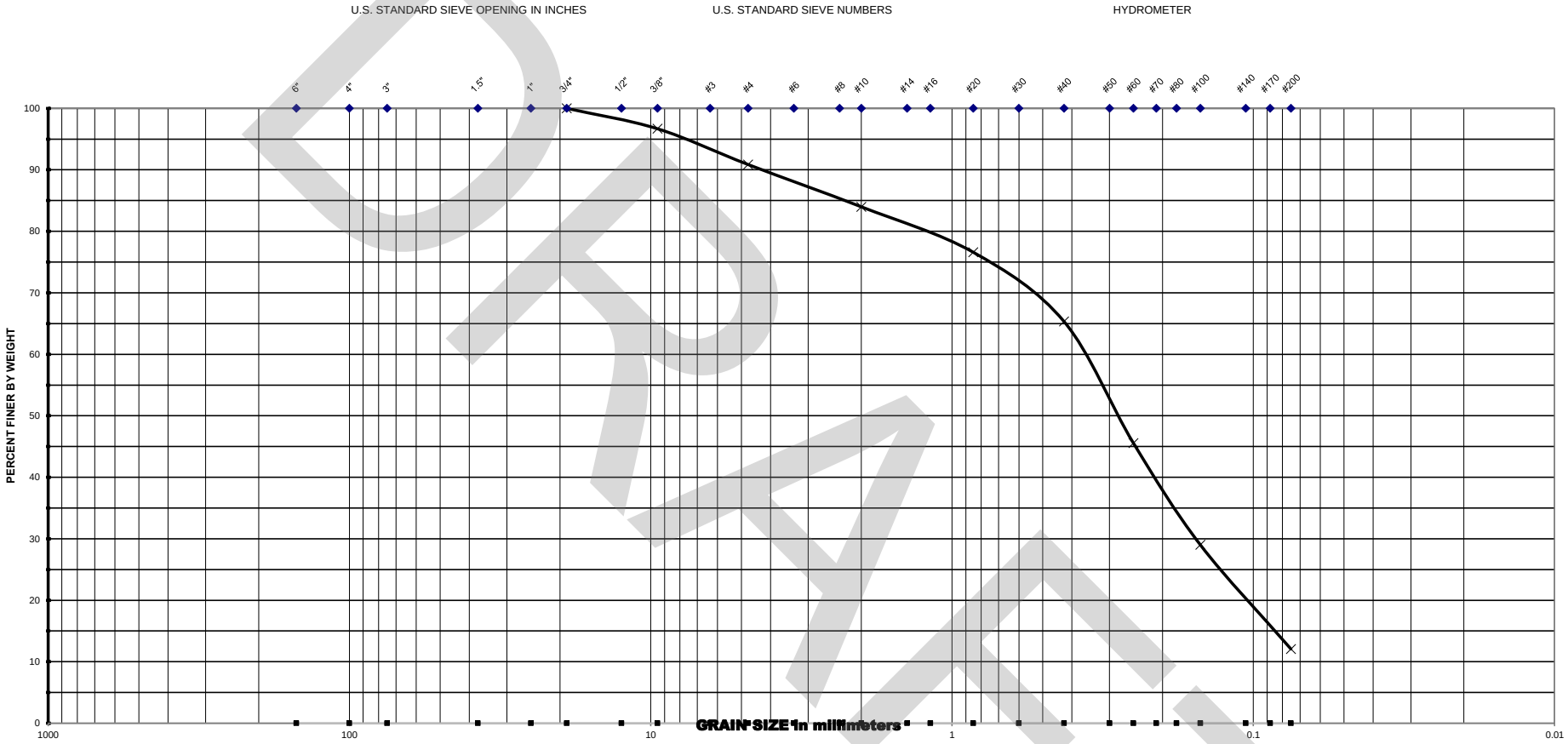
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-8	10.0 - 12.0	A-3	22.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	99.9
#10	99.3
#20	98.1
#40	87.7
#60	42.7
#100	12.4
#200	5.8

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

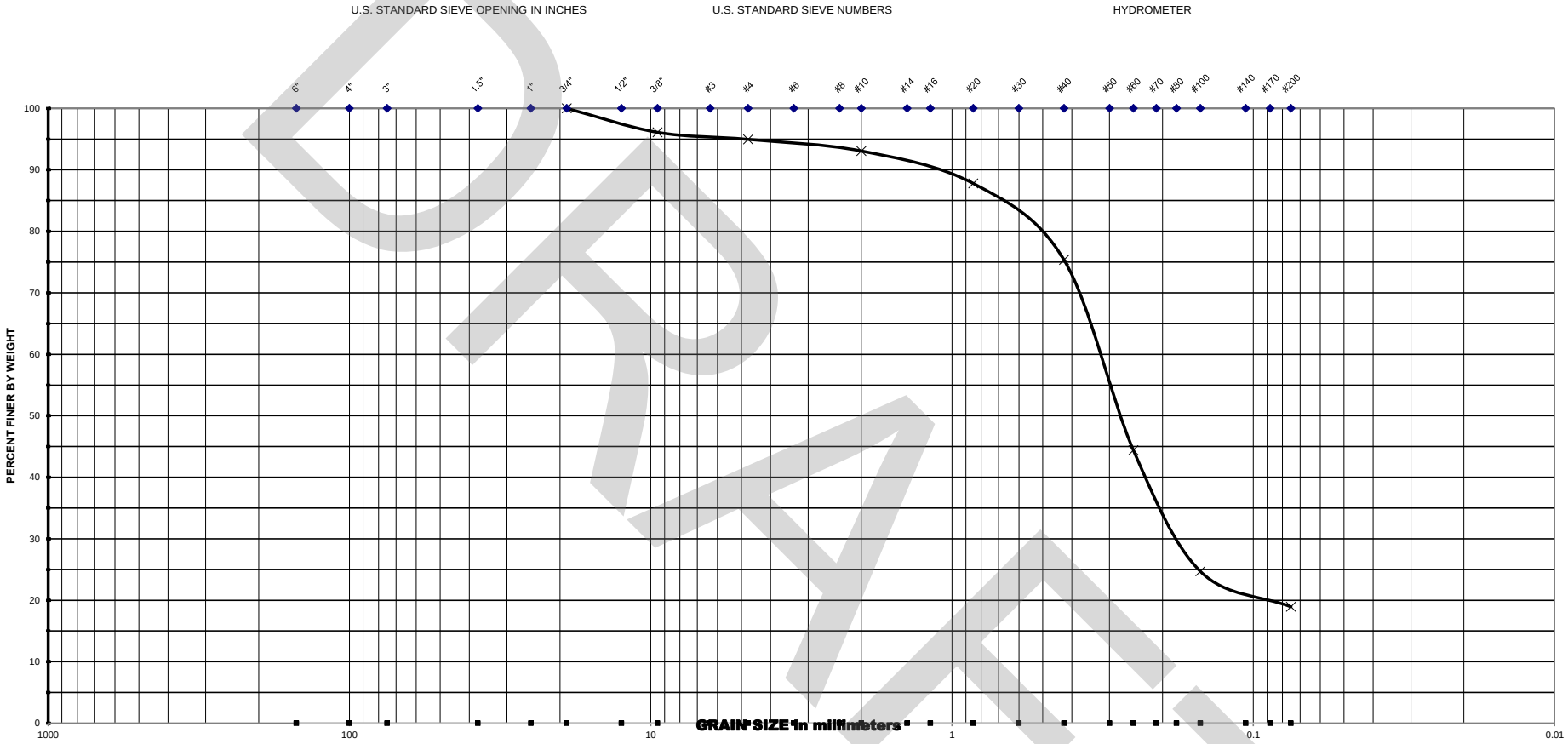
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-8	15.0 - 20.0	A-2-4	19.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.7
#4	90.9
#10	84.0
#20	76.6
#40	65.3
#60	45.6
#100	29.0
#200	12.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

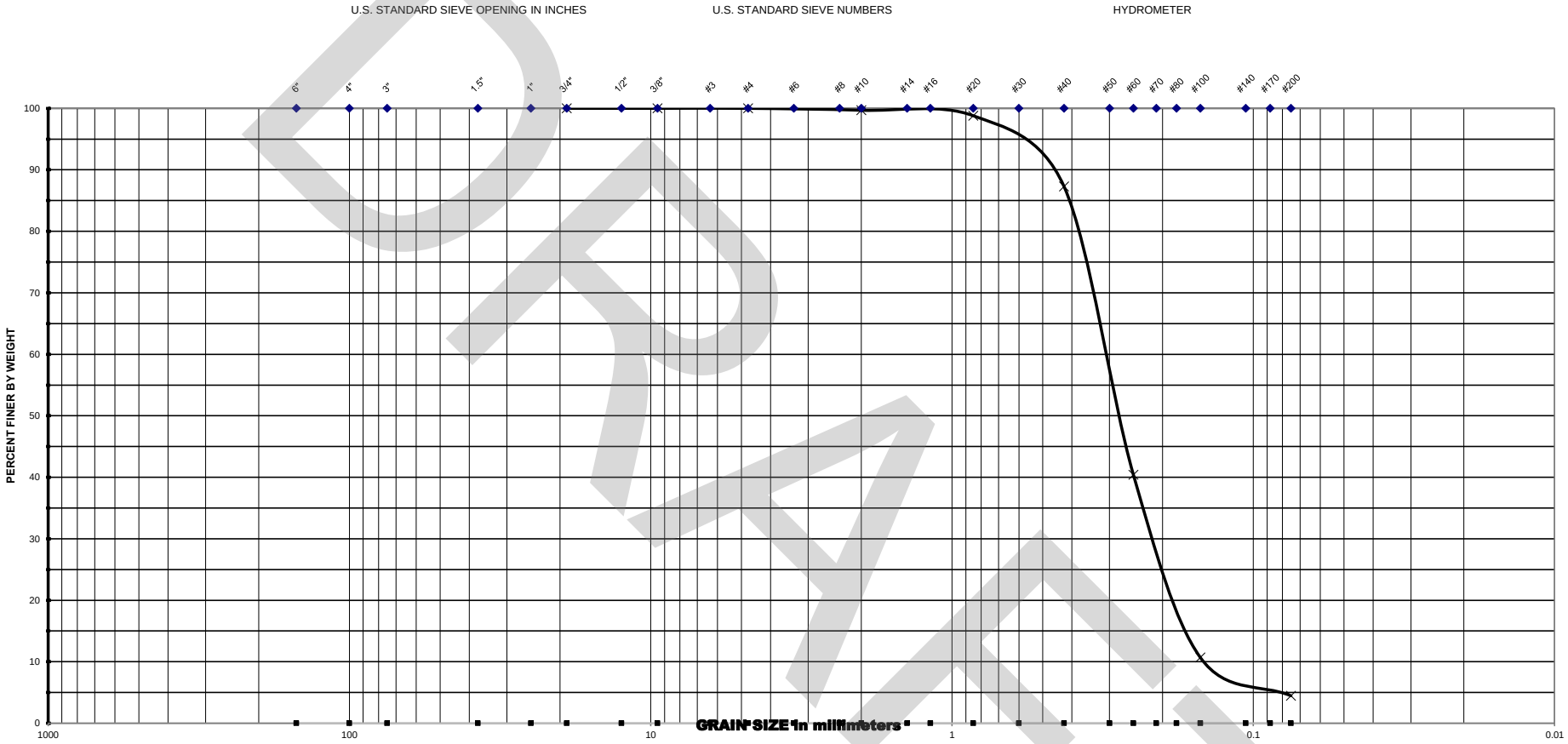
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-9	8.0 - 10.0	A-2-4	24.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.1
#4	94.9
#10	93.1
#20	87.8
#40	75.3
#60	44.4
#100	24.7
#200	18.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

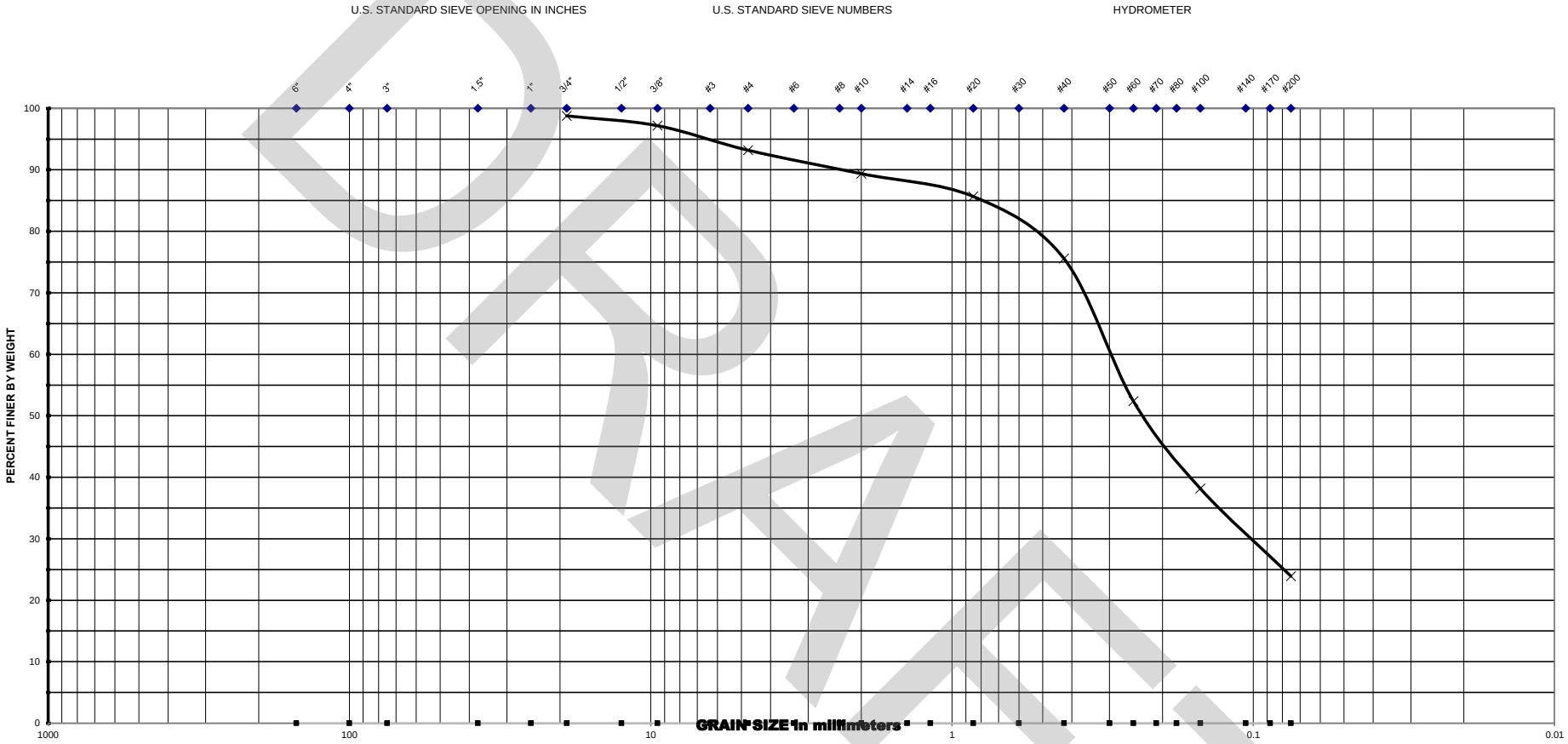
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-9	13.5 - 15.0	A-3	19.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	99.7
#20	98.8
#40	87.3
#60	40.4
#100	10.7
#200	4.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/19/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-9	15.0 - 20.0	A-2-4	21.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	98.8
3/8"	97.2
#4	93.2
#10	89.4
#20	85.7
#40	75.6
#60	52.4
#100	38.2
#200	23.9

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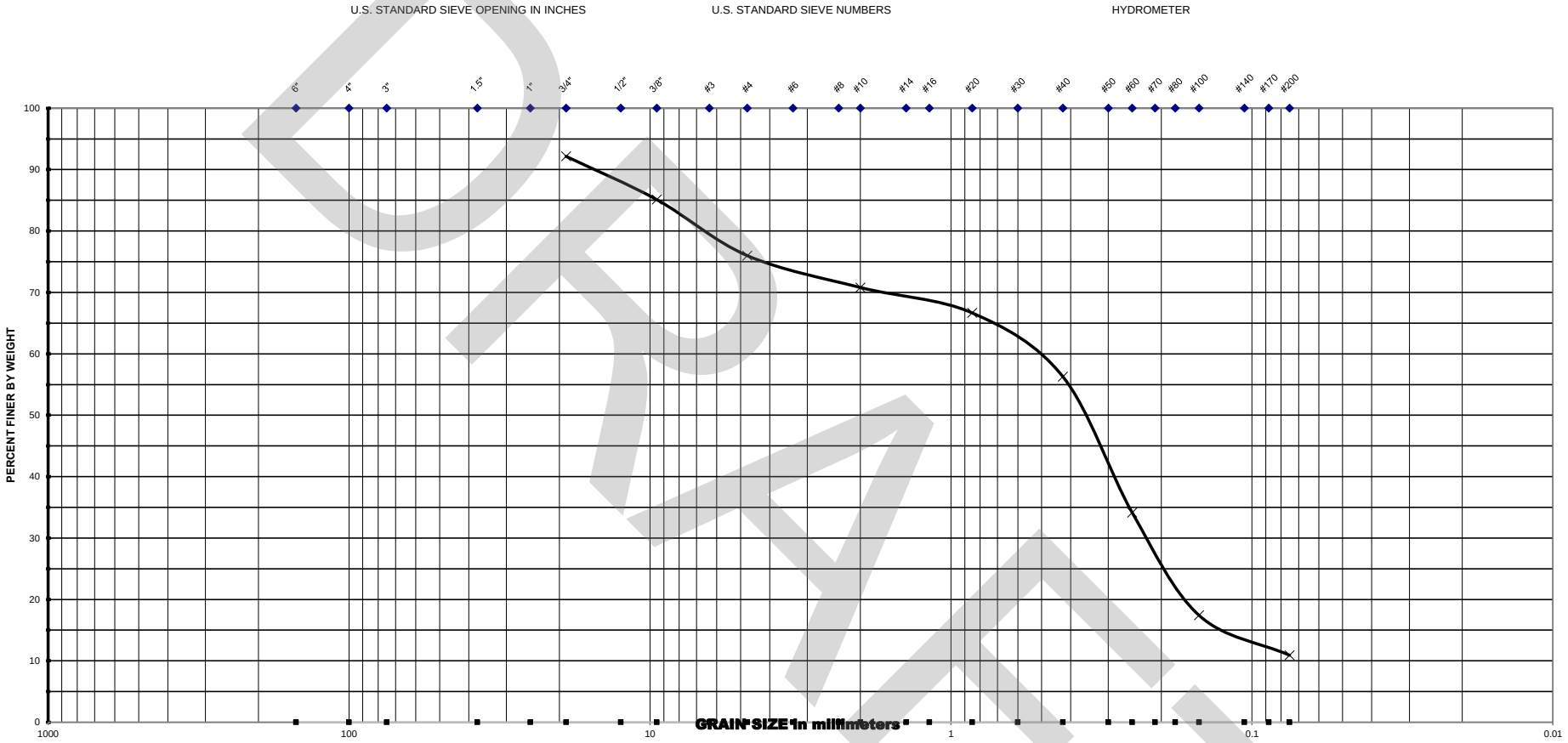

Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-10	8.0 - 10.0	A-2-4	16.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	92.2
3/8"	85.1
#4	76.0
#10	70.8
#20	66.7
#40	56.3
#60	34.1
#100	17.4
#200	10.9

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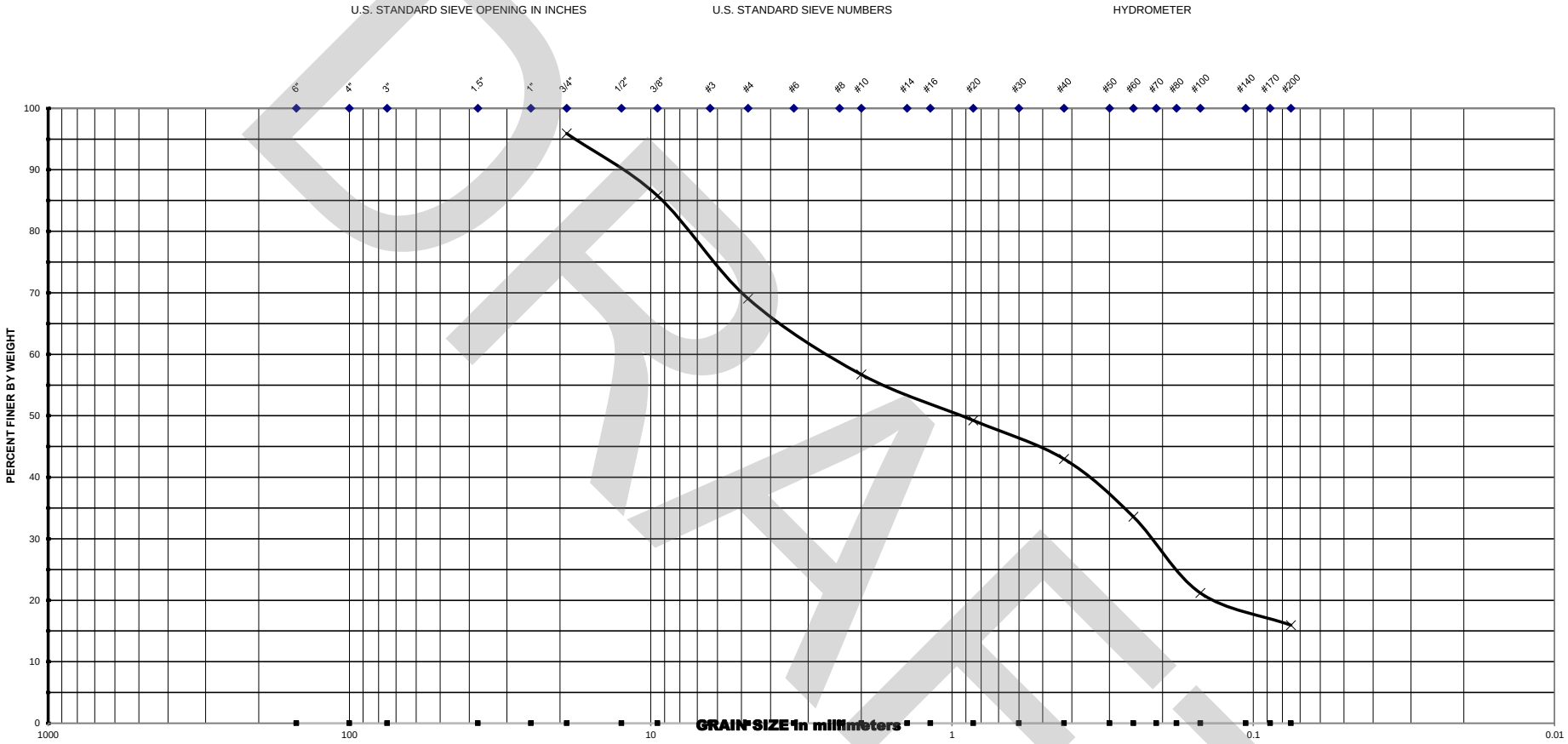


Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

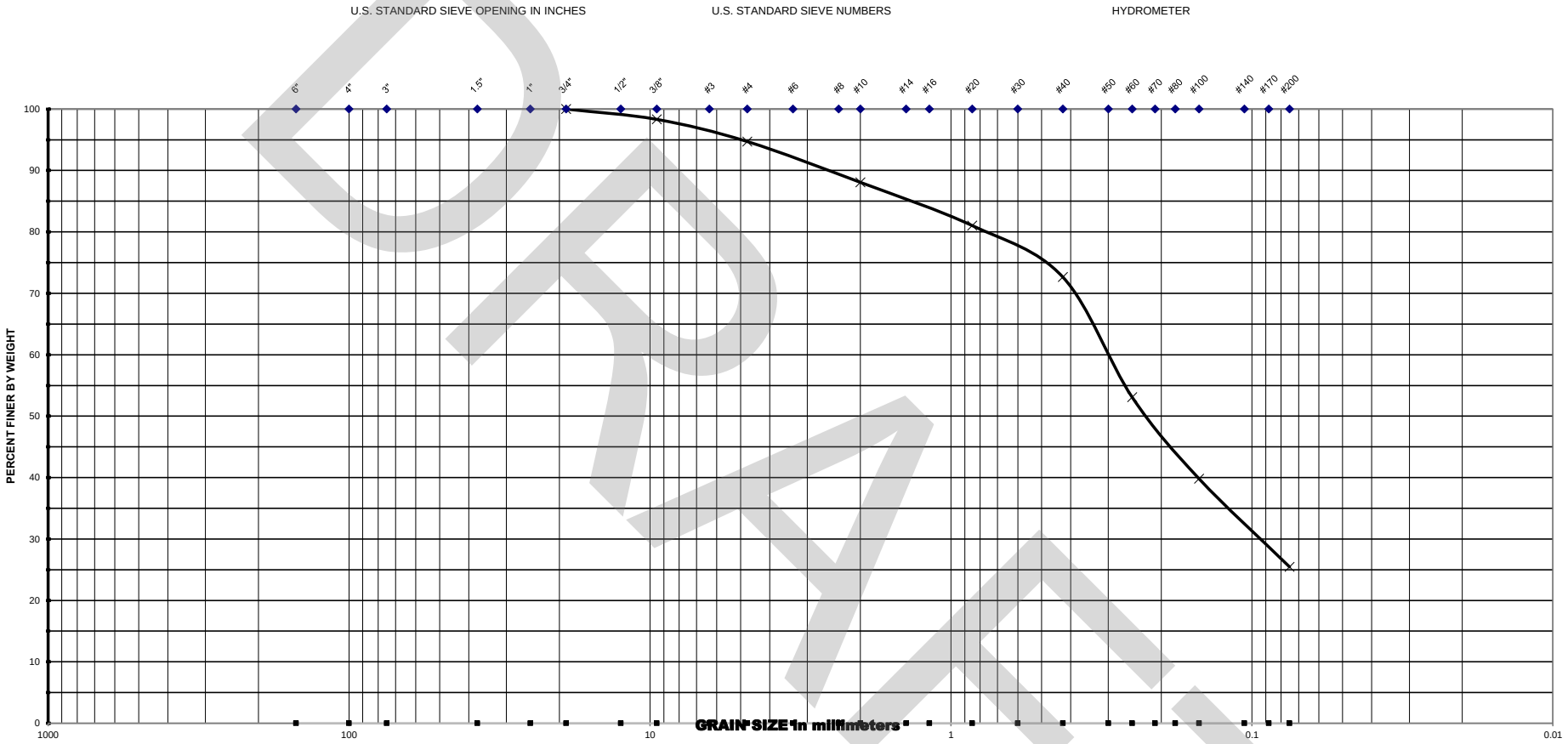
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-10	12.0 - 13.5	A-1-b	18.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	95.9
3/8"	85.8
#4	69.1
#10	56.7
#20	49.2
#40	43.0
#60	33.6
#100	21.2
#200	15.9

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-10	15.0 - 20.0	A-2-4	23.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	98.3
#4	94.7
#10	88.1
#20	81.0
#40	72.6
#60	53.1
#100	39.8
#200	25.5

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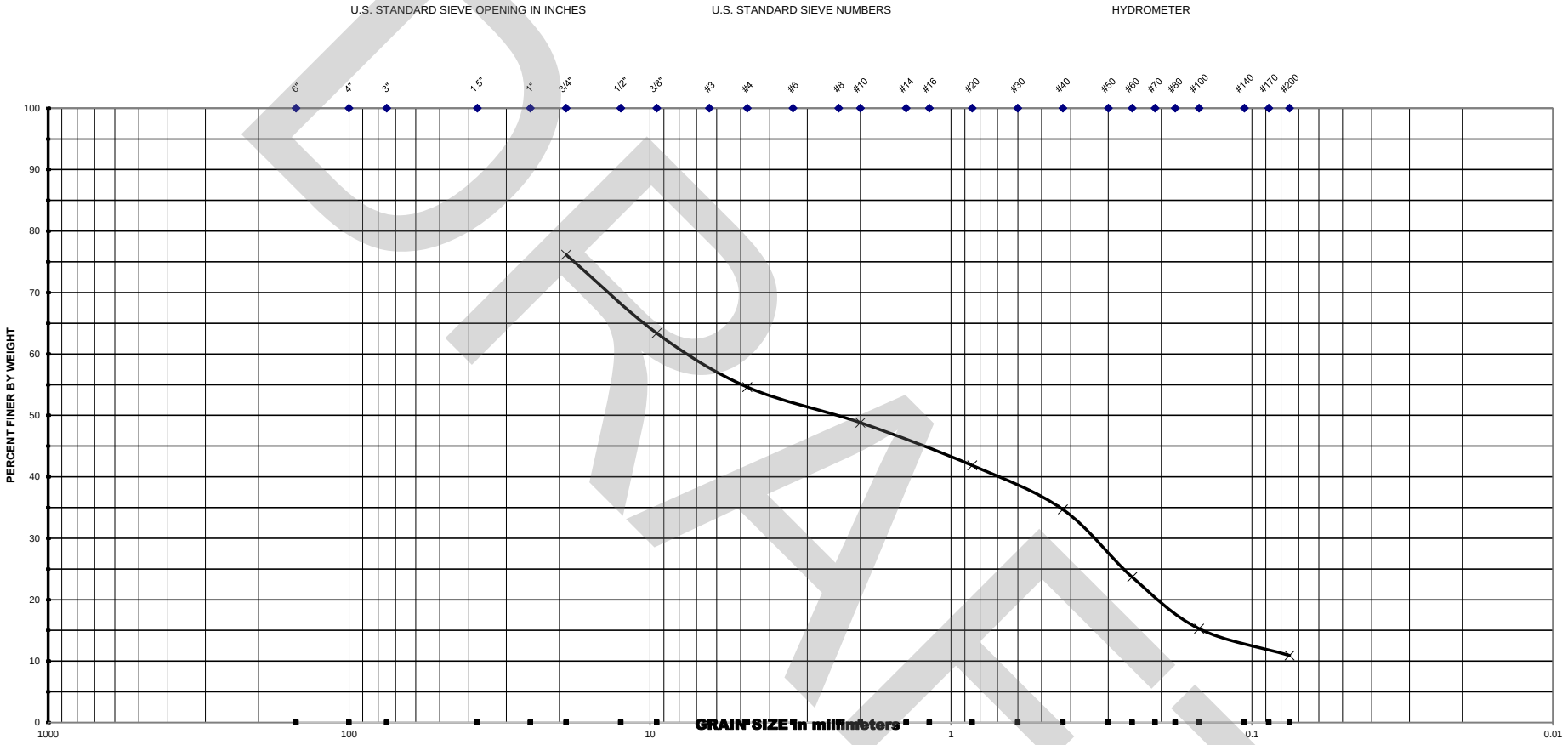

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Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-11	4.0 - 6.0	A-1-b	15.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	76.2
3/8"	63.4
#4	54.6
#10	48.8
#20	41.9
#40	34.7
#60	23.7
#100	15.3
#200	10.9

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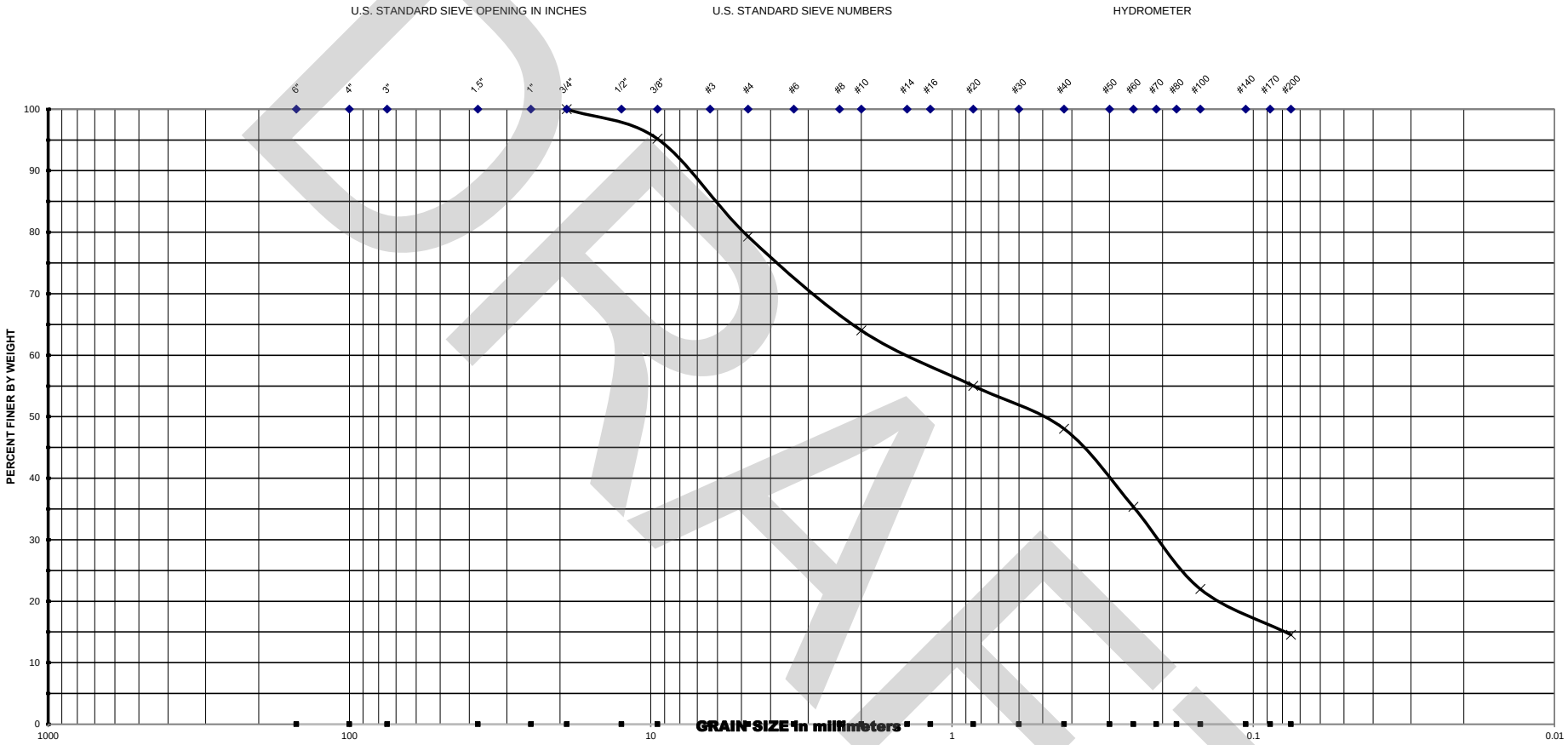


Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

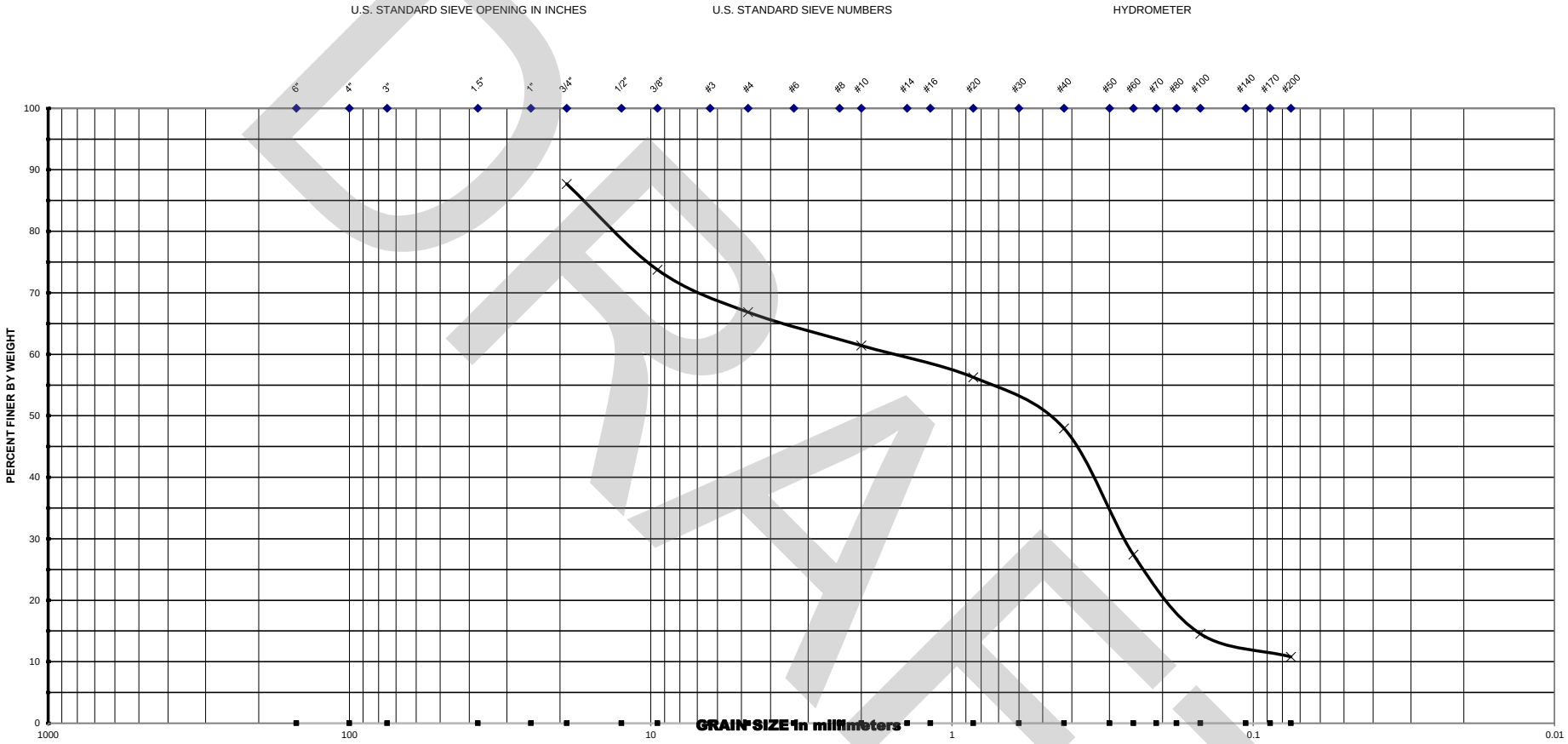
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-11	13.5 - 15.0	A-1-b	21.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	95.2
#4	79.3
#10	64.0
#20	55.0
#40	48.0
#60	35.3
#100	22.0
#200	14.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

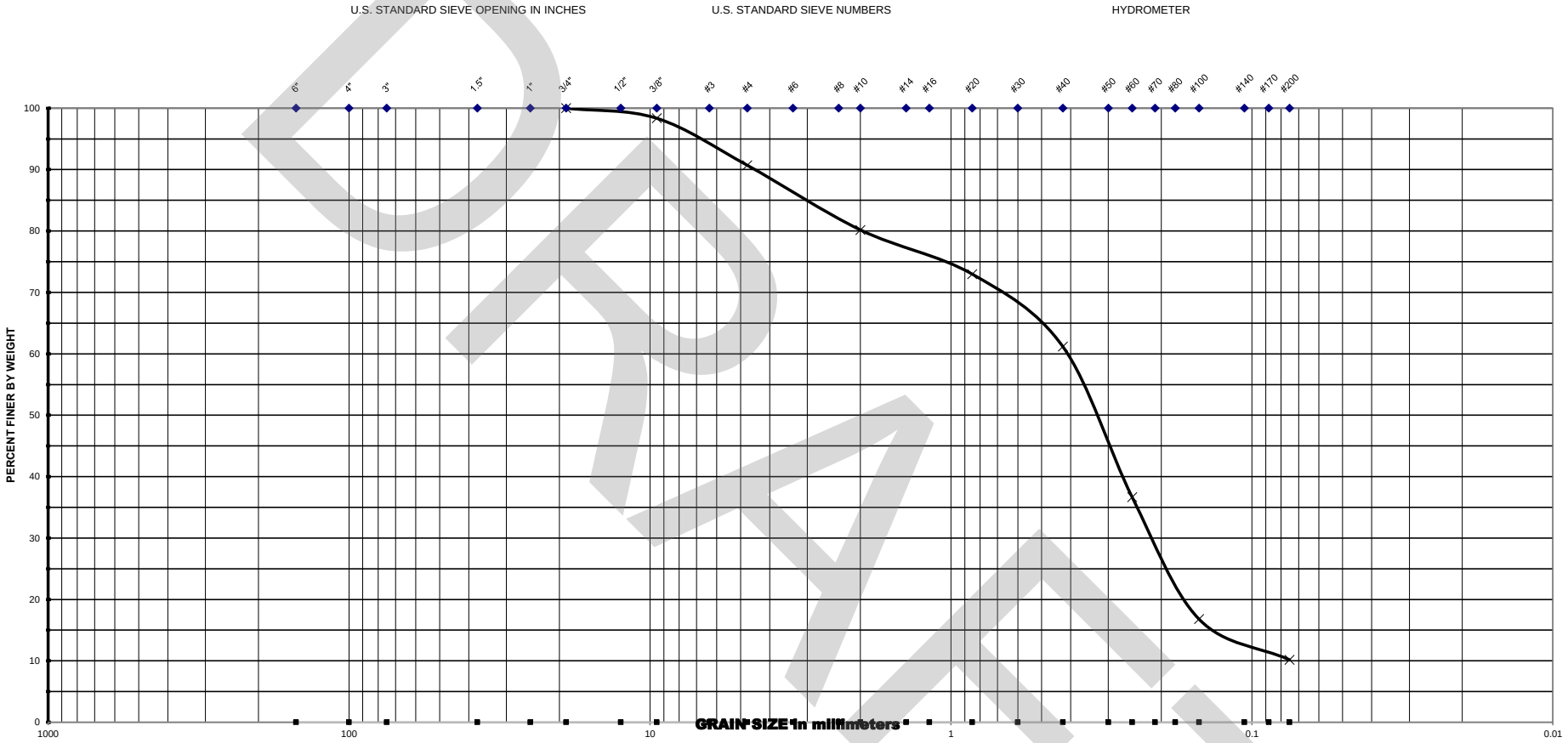
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-12	6.0 - 8.0	A-1-b	13.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	87.7
3/8"	73.7
#4	66.9
#10	61.4
#20	56.3
#40	48.0
#60	27.4
#100	14.6
#200	10.8

GCME

Geotechnical - Consulting - Engineering - Testing



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Project No. : 2000-01-16001 **Date :** 3/22/2018

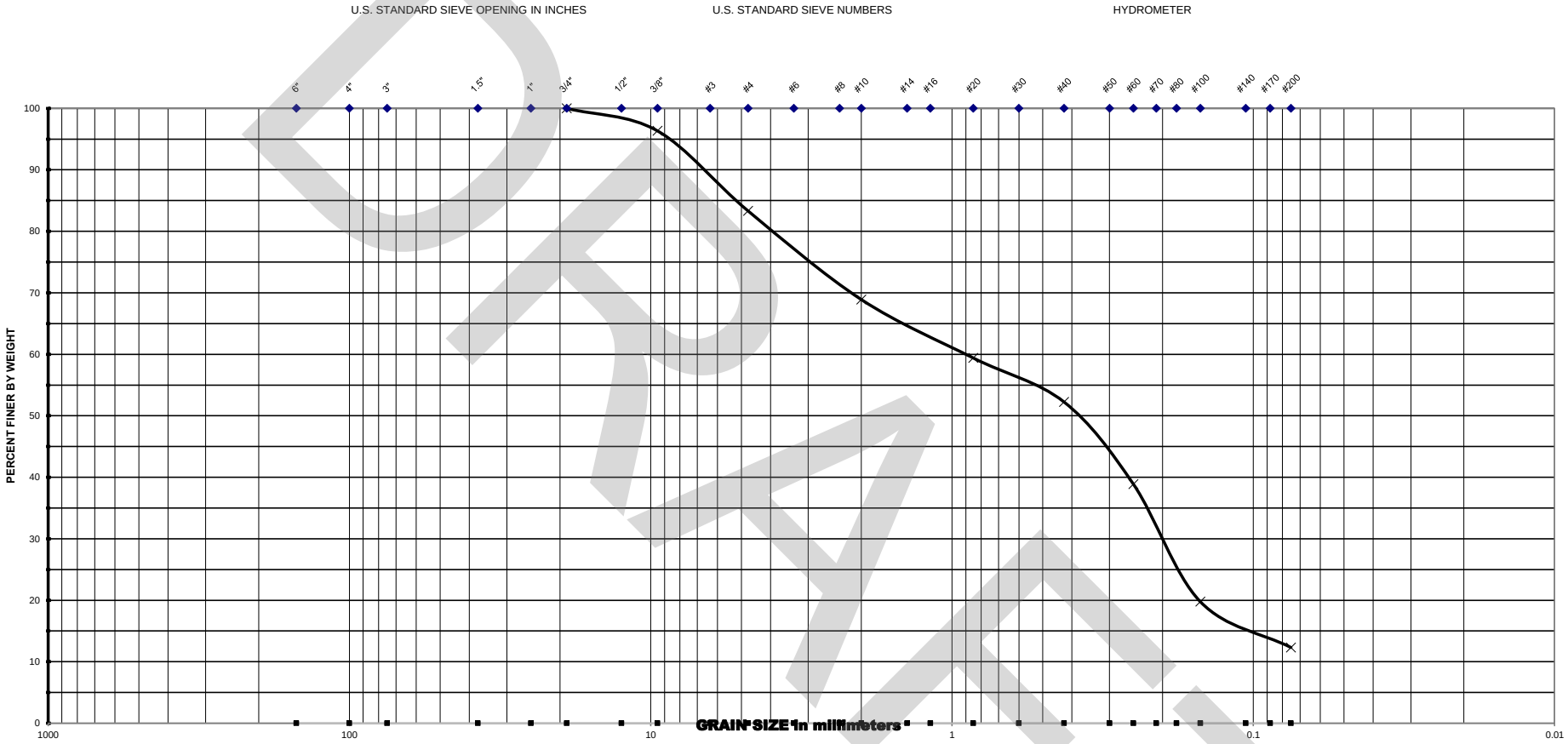
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-12	10.0 - 12.0	A-3	17.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	98.4
#4	90.7
#10	80.2
#20	73.0
#40	61.2
#60	36.6
#100	16.8
#200	10.2

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

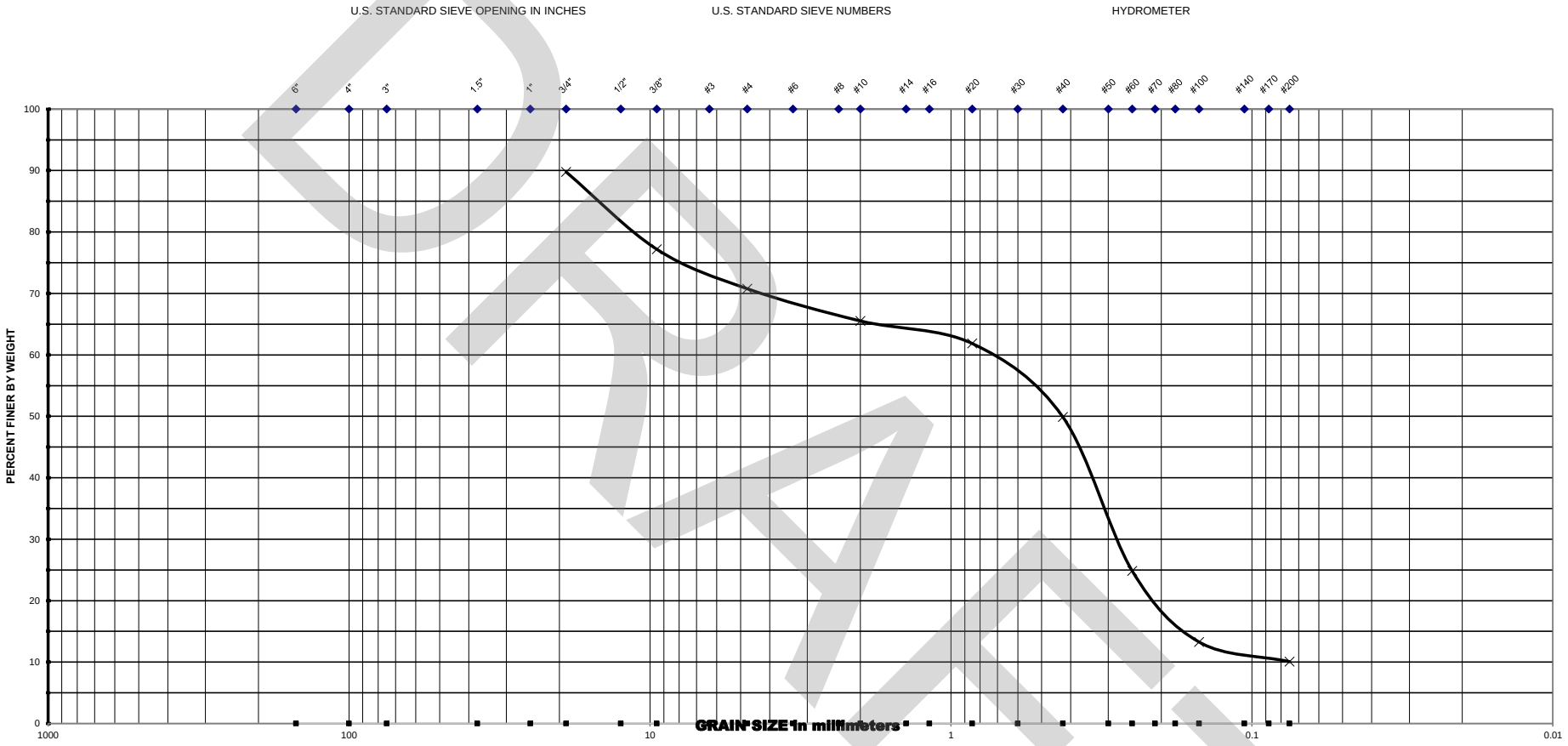
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-12	13.5 - 15.0	A-2-4	19.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.3
#4	83.3
#10	68.9
#20	59.4
#40	52.3
#60	38.9
#100	19.8
#200	12.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

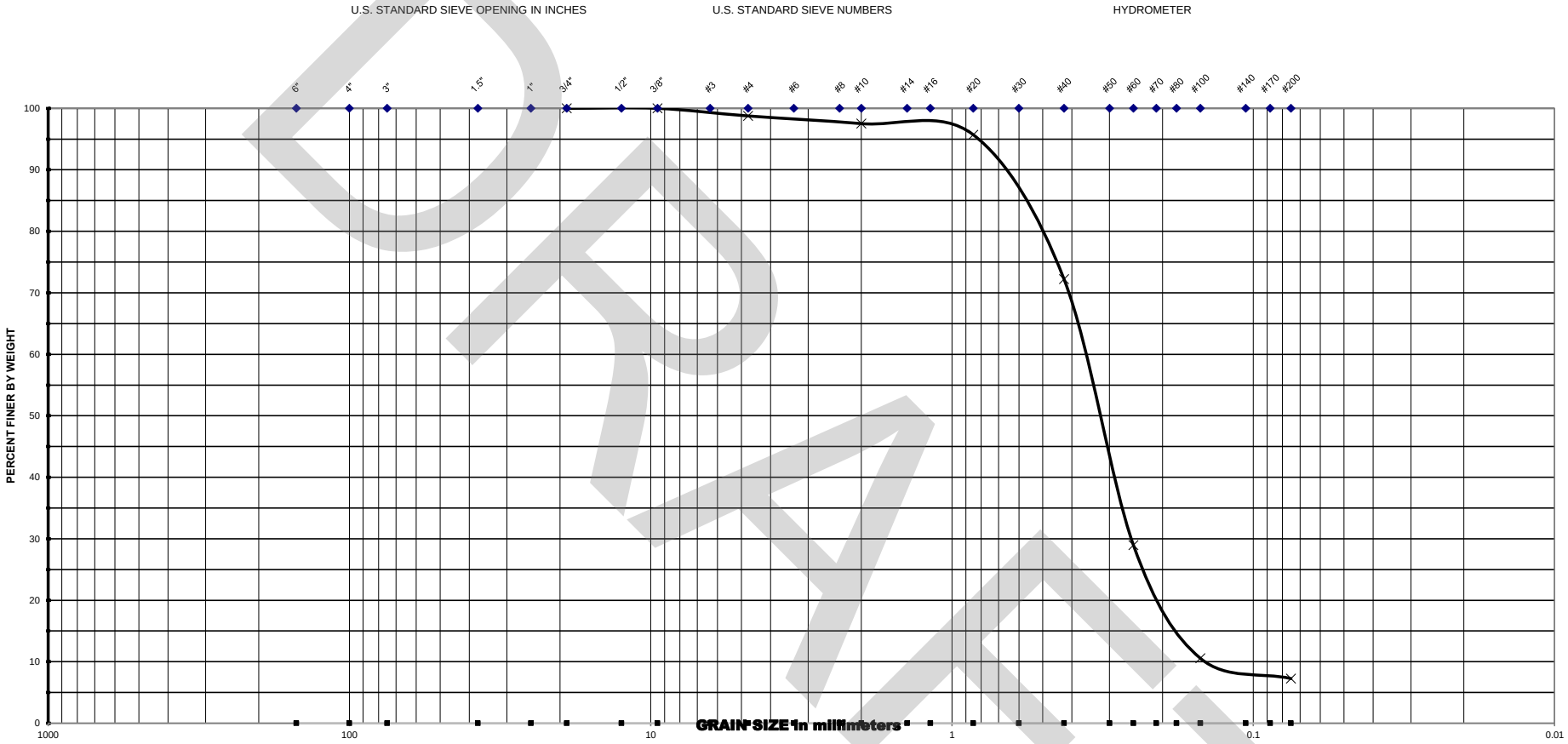
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-13	6.0 - 8.0	A-1-b	13.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	89.8
3/8"	77.2
#4	70.8
#10	65.5
#20	61.8
#40	49.9
#60	24.8
#100	13.3
#200	10.1

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

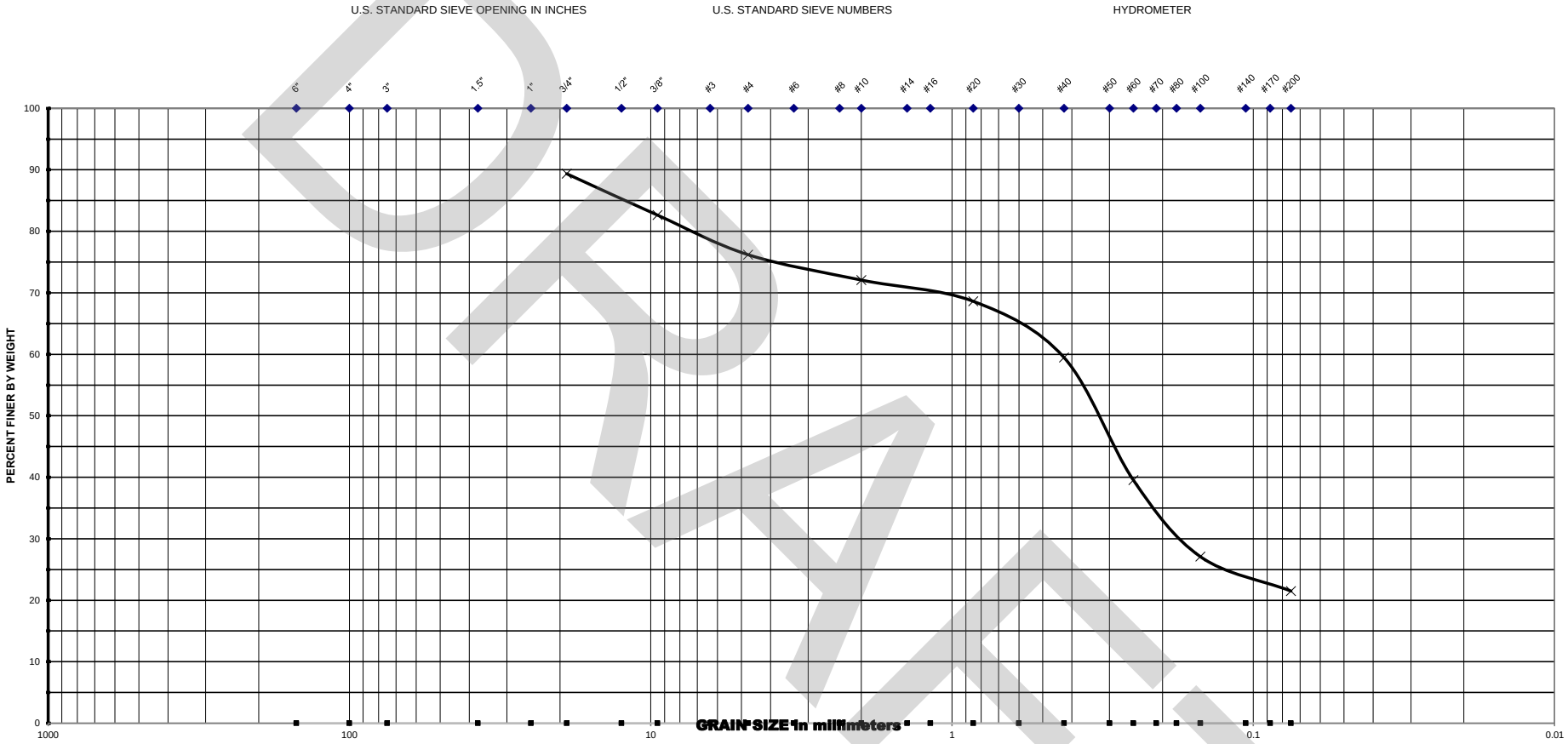
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-13	8.0 - 10.0	A-3	20.1	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	98.8
#10	97.5
#20	95.7
#40	72.2
#60	29.0
#100	10.6
#200	7.3

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-14	2.0 - 4.0	A-2-4	19.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	89.4
3/8"	82.6
#4	76.2
#10	72.1
#20	68.6
#40	59.5
#60	39.5
#100	27.1
#200	21.5

GCME

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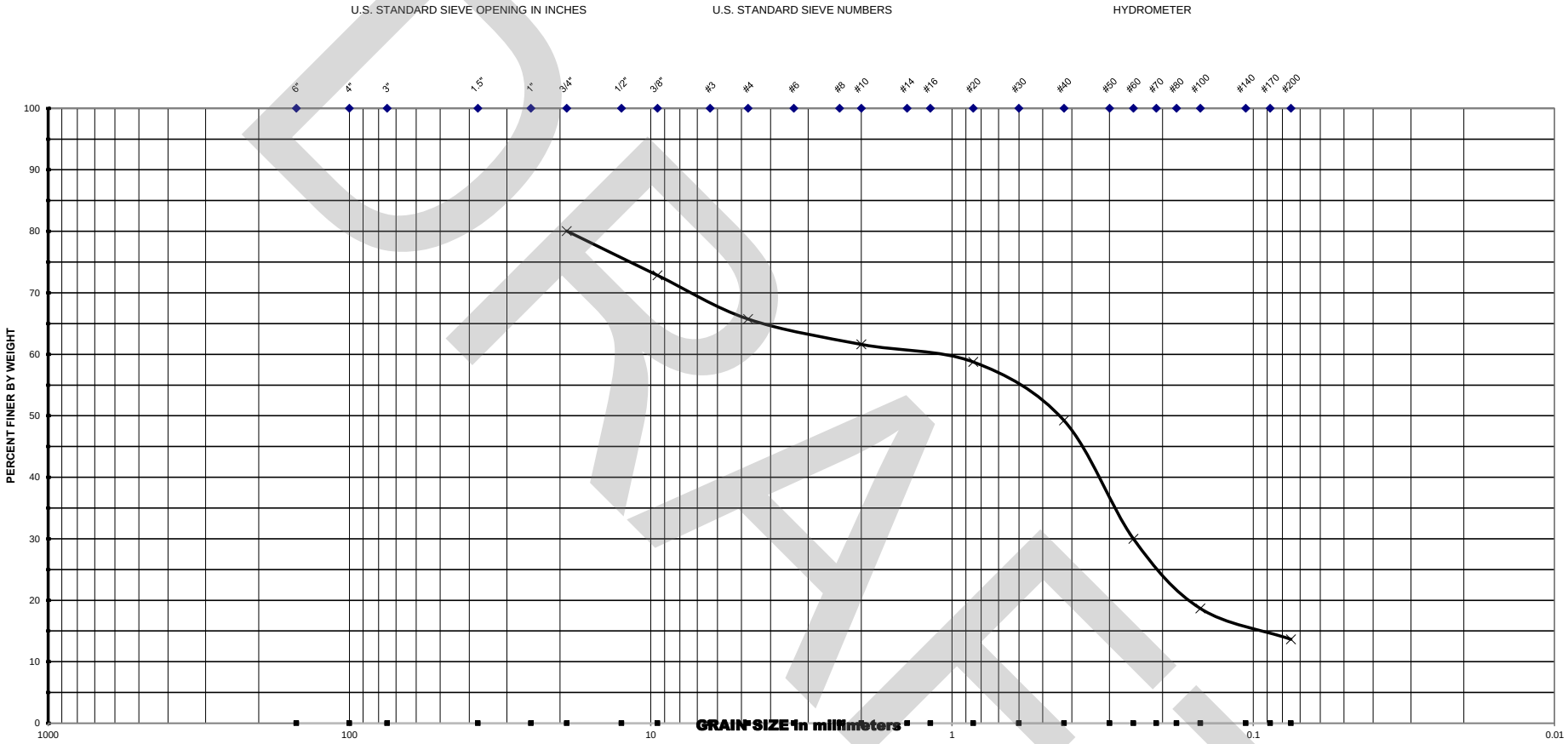


Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

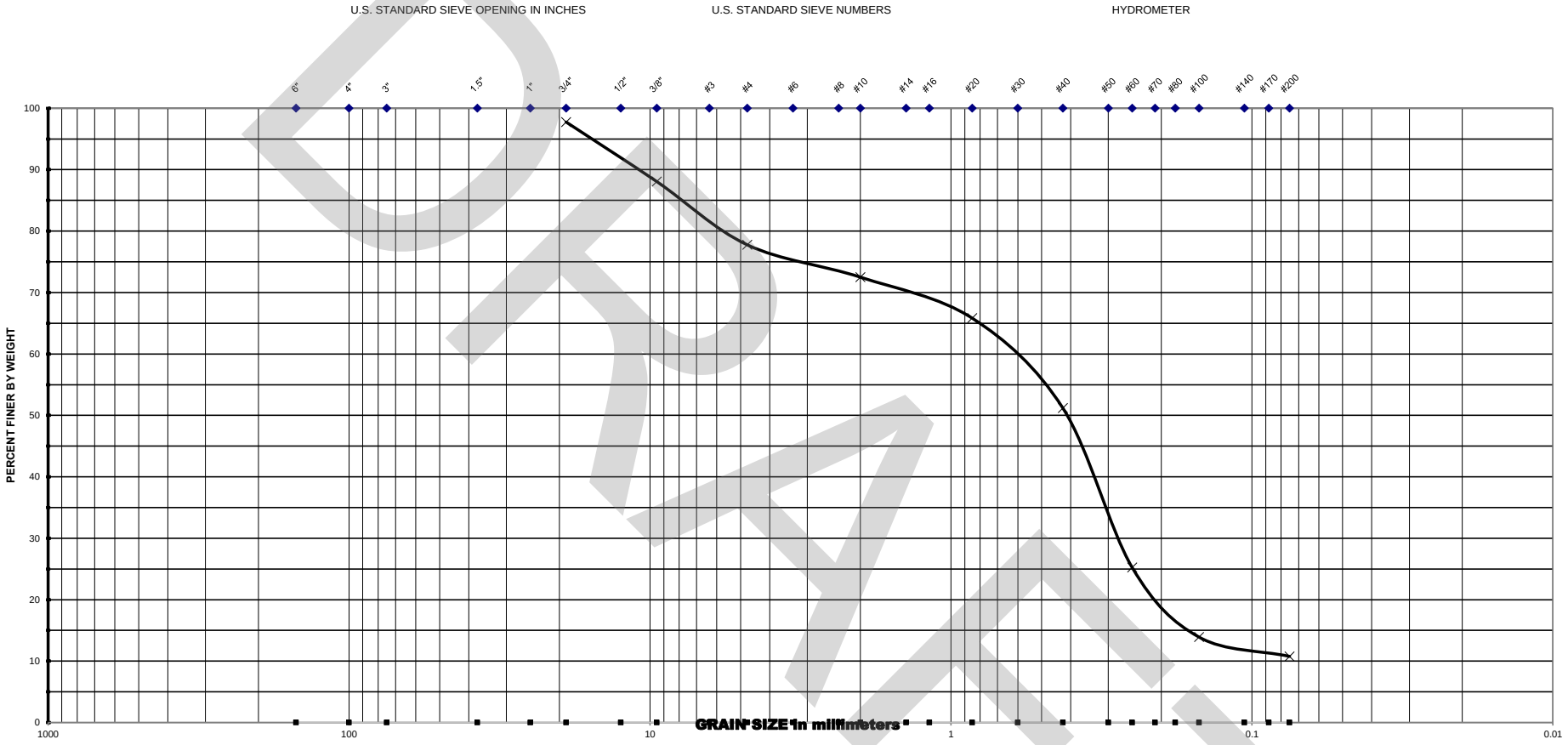
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-15	2.0 - 4.0	A-1-b	20.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	80.0
3/8"	72.8
#4	65.7
#10	61.6
#20	58.7
#40	49.2
#60	30.0
#100	18.7
#200	13.6

GCME

Geotechnical - Consulting - Engineering - Testing



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Project No. : 2000-01-16001 **Date :** 3/22/2018

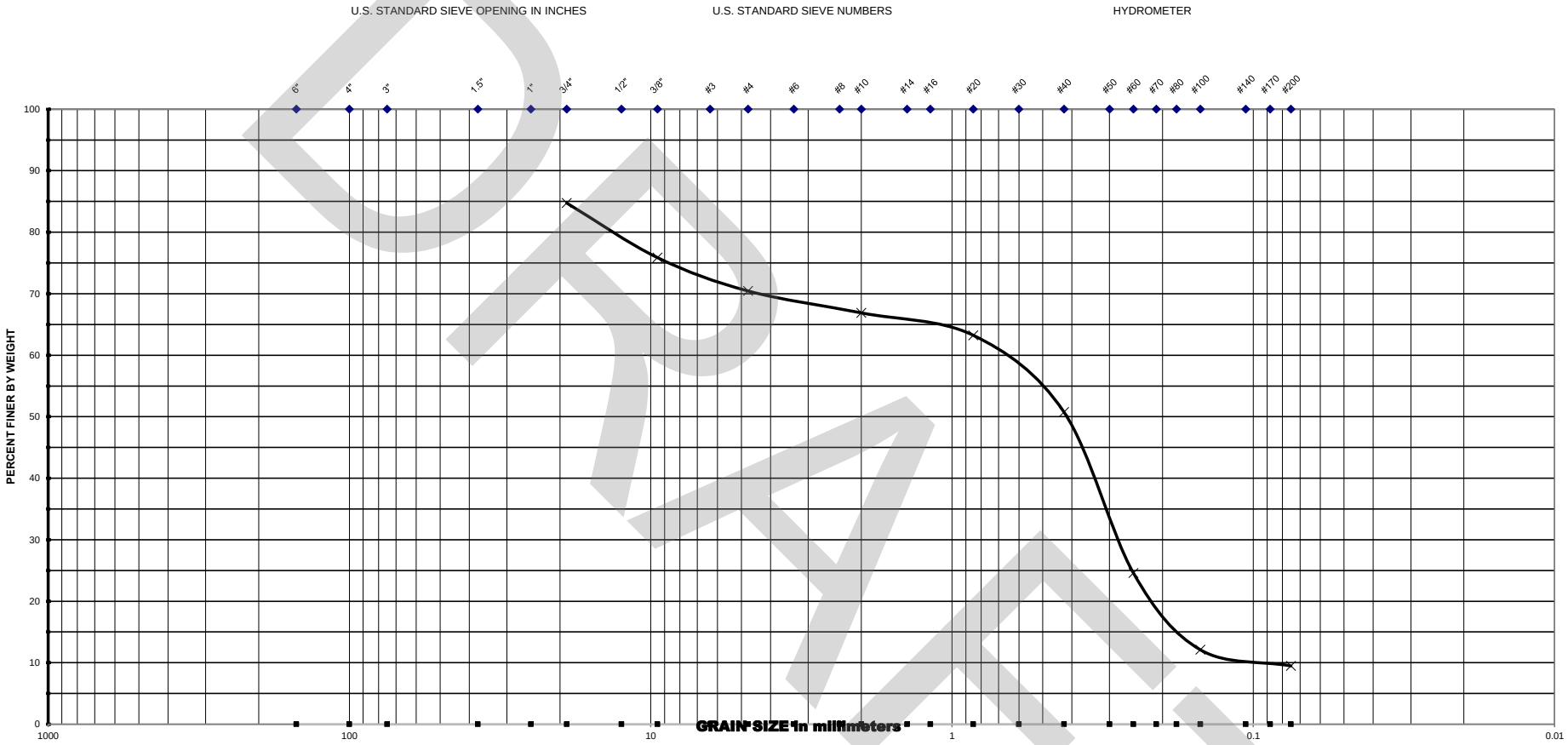
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-15	4.0 - 6.0	A-2-4	23.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	97.8
3/8"	88.1
#4	77.8
#10	72.5
#20	65.8
#40	51.2
#60	25.2
#100	13.9
#200	10.8

GCME

Geotechnical - Consulting - Engineering - Testing



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Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-16	6.0 - 8.0	A-3	13.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	84.7
3/8"	75.9
#4	70.4
#10	66.9
#20	63.2
#40	50.7
#60	24.6
#100	12.1
#200	9.5

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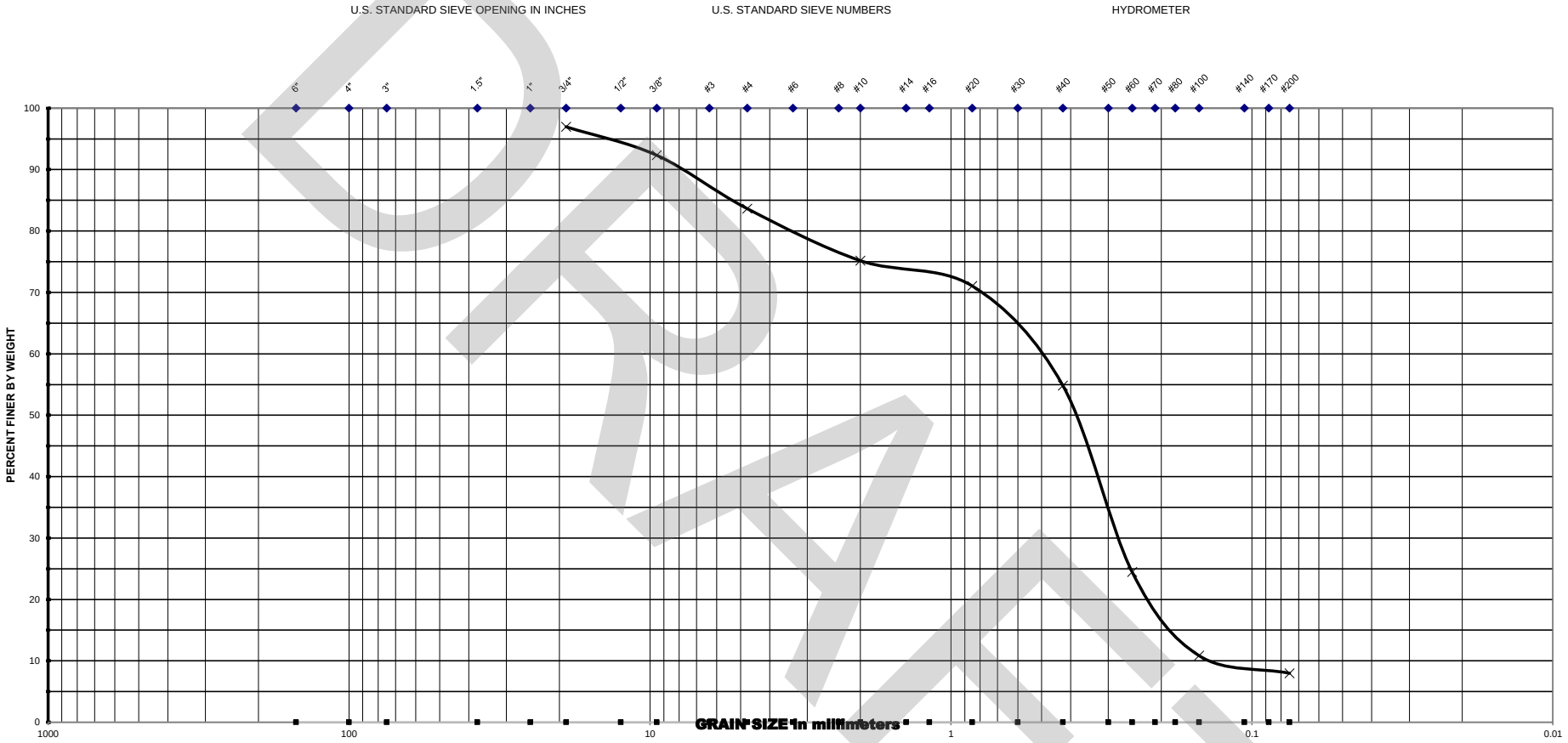


Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

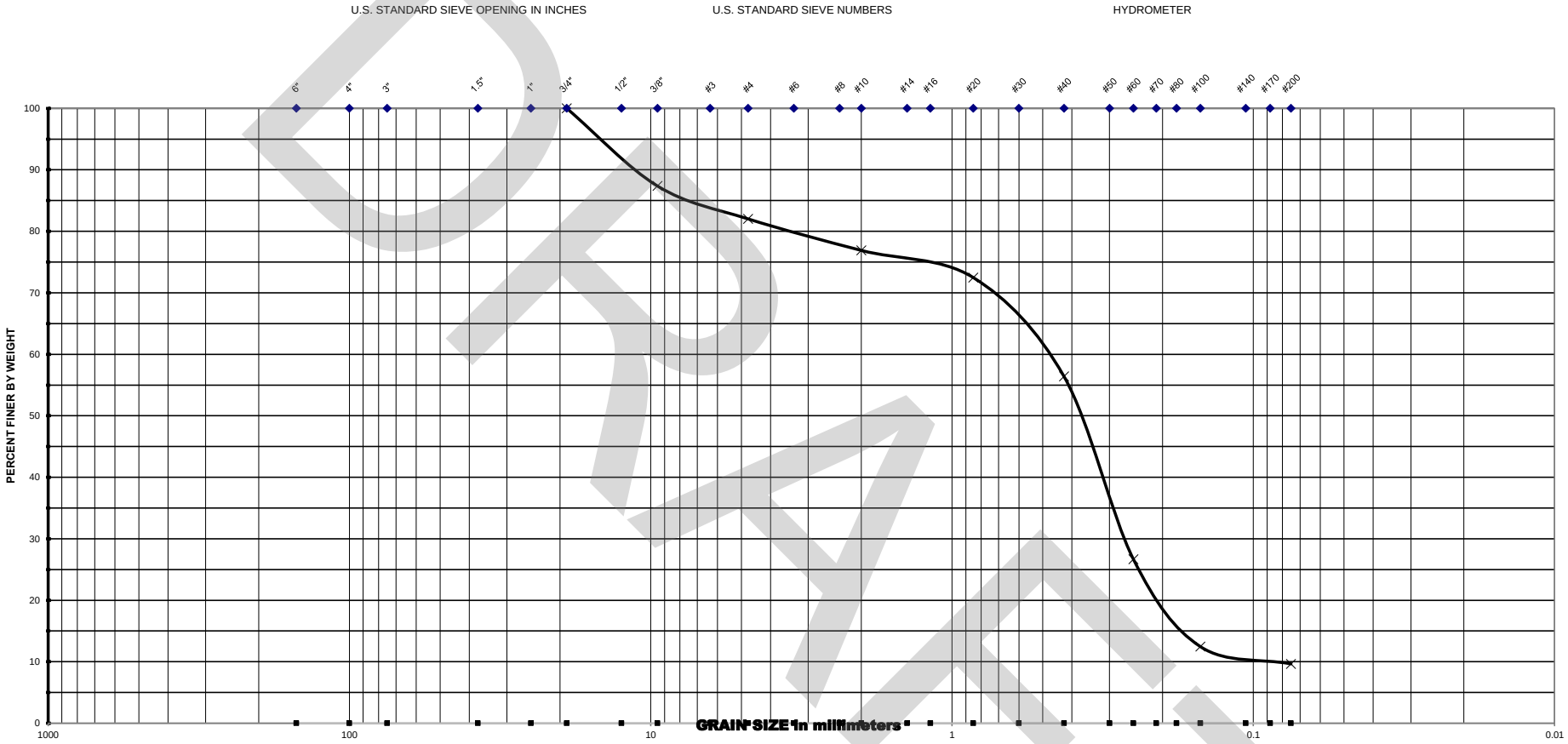
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-16	8.0 - 10.0	A-3	20.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	97.0
3/8"	92.3
#4	83.6
#10	75.2
#20	71.1
#40	54.8
#60	24.5
#100	10.9
#200	8.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

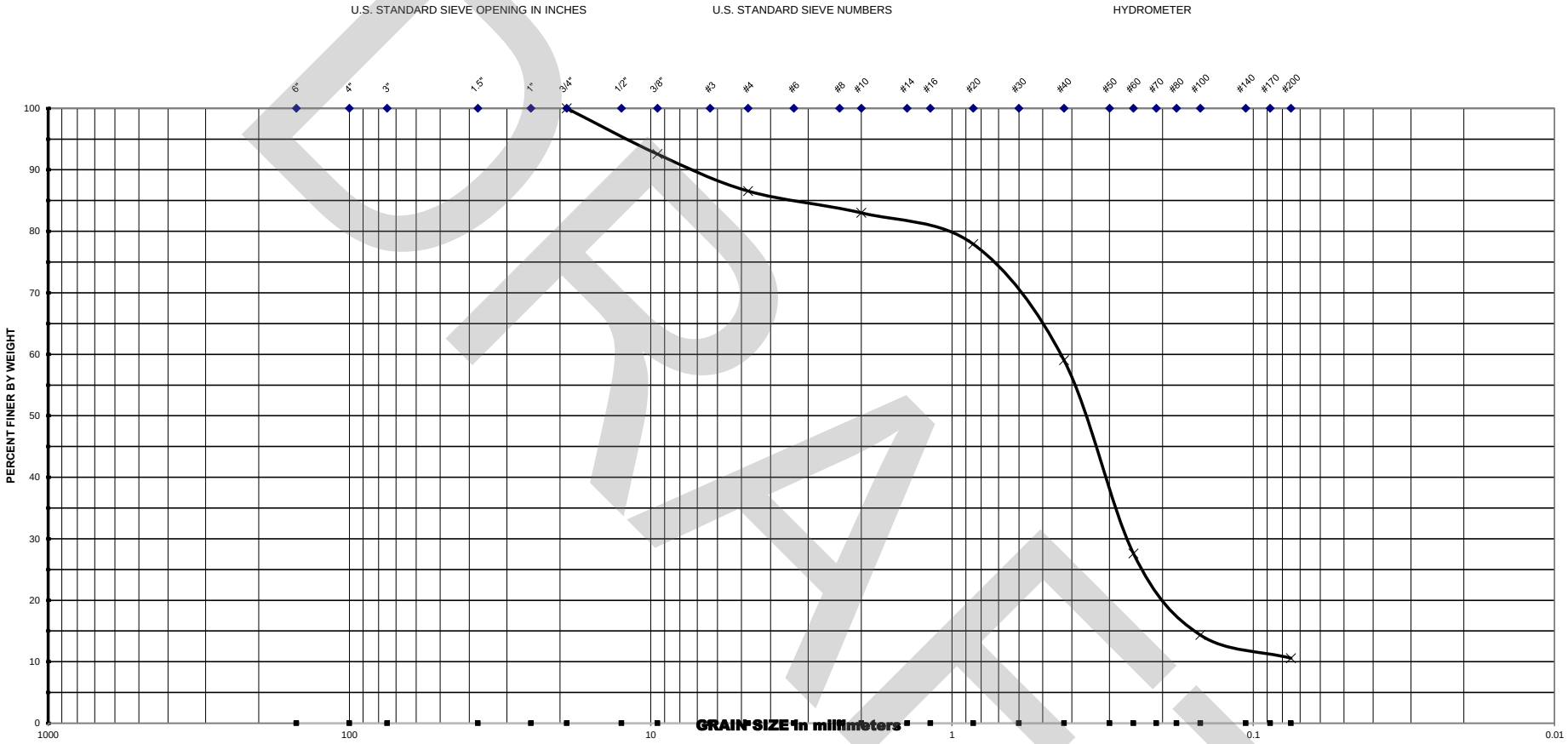
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-16	10.0 - 12.0	A-3	18.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	87.4
#4	82.0
#10	76.9
#20	72.5
#40	56.4
#60	26.7
#100	12.5
#200	9.7

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-17	10.0 - 12.0	A-2-4	23.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	92.6
#4	86.5
#10	83.0
#20	77.9
#40	59.0
#60	27.6
#100	14.4
#200	10.6

GCME

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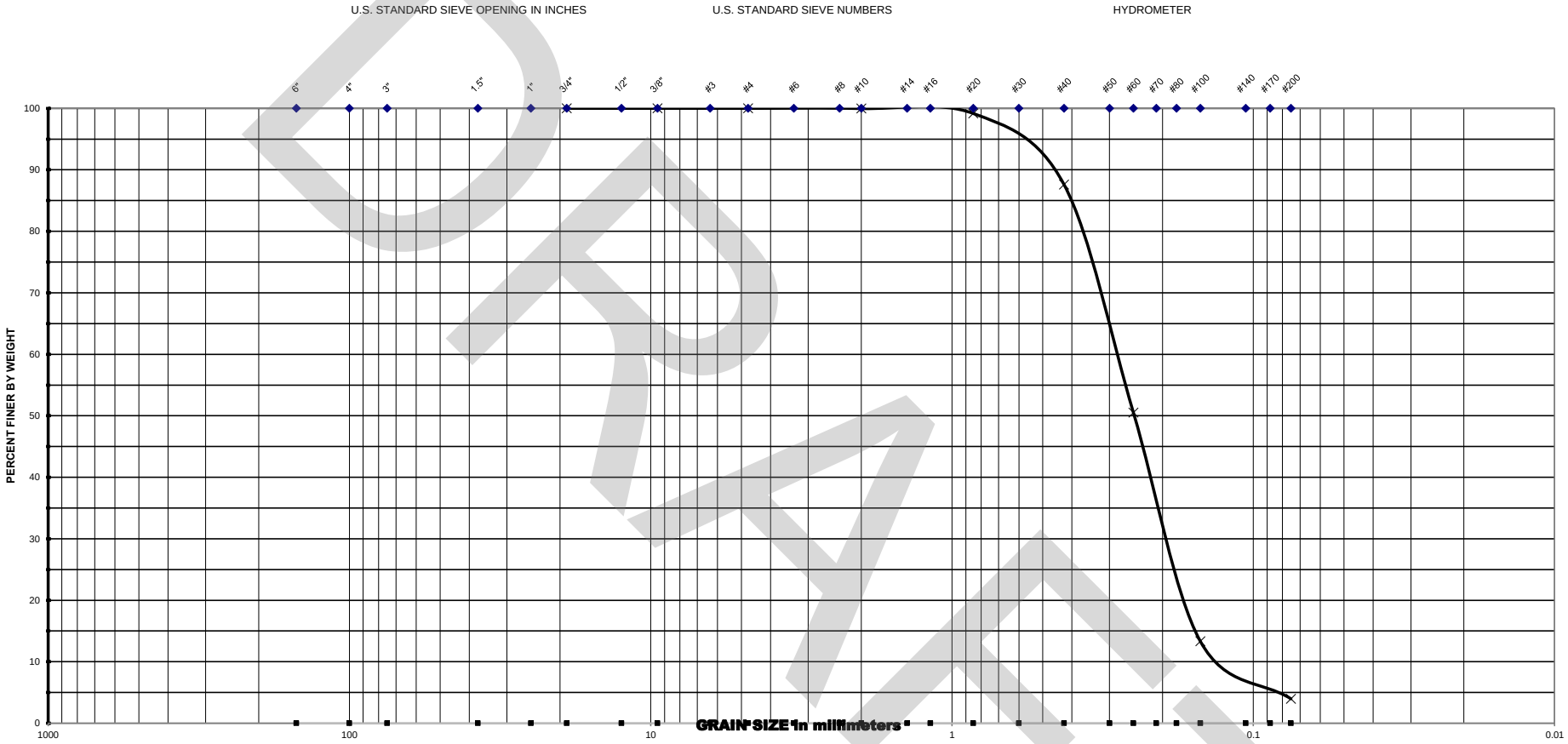

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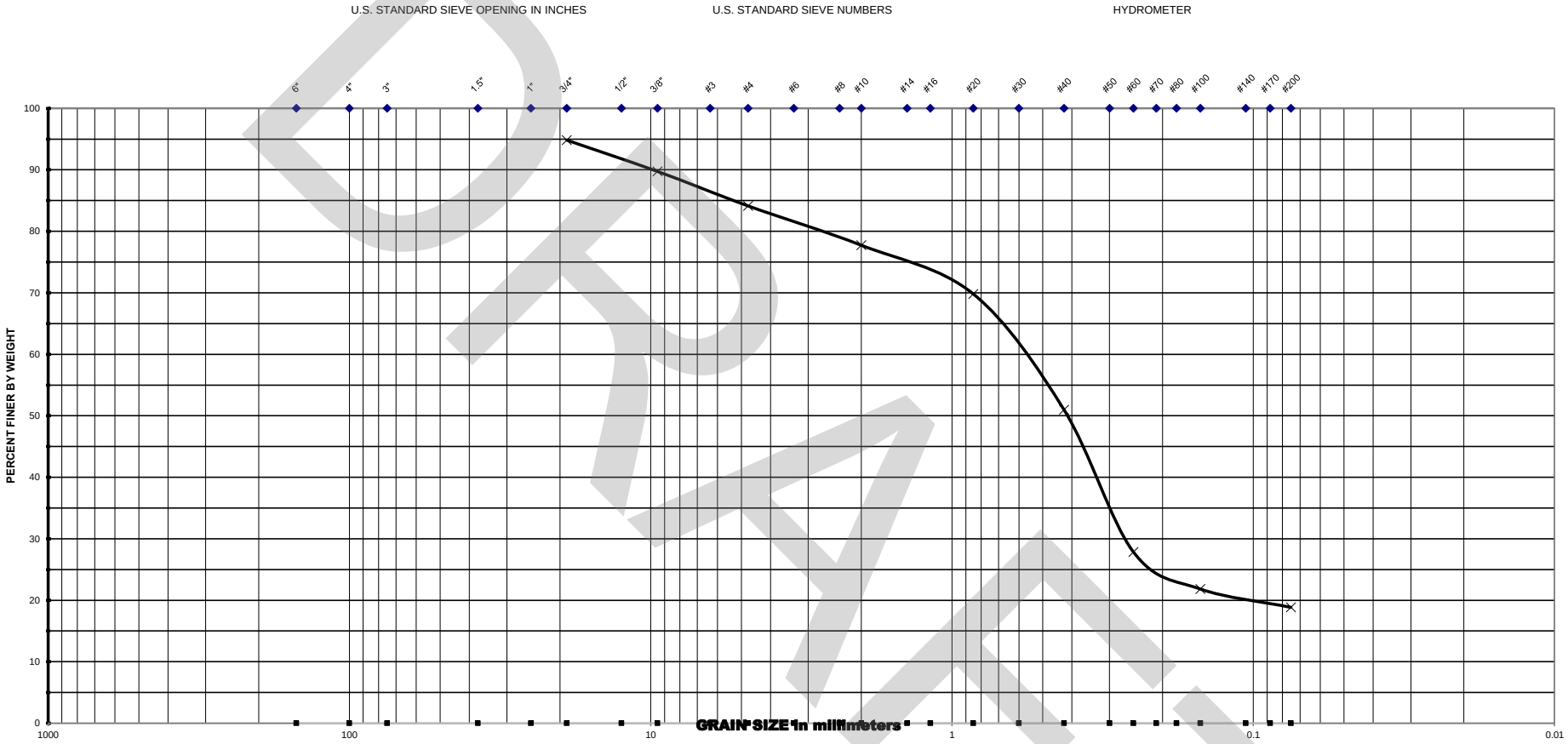
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-17	13.5 - 15.0	A-3	23.2	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	99.2
#40	87.6
#60	50.5
#100	13.3
#200	4.0

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/22/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-18	6.0 - 8.0	A-2-4	32.0	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	94.8
3/8"	89.7
#4	84.1
#10	77.7
#20	69.8
#40	51.0
#60	27.8
#100	21.8
#200	18.8

GCME

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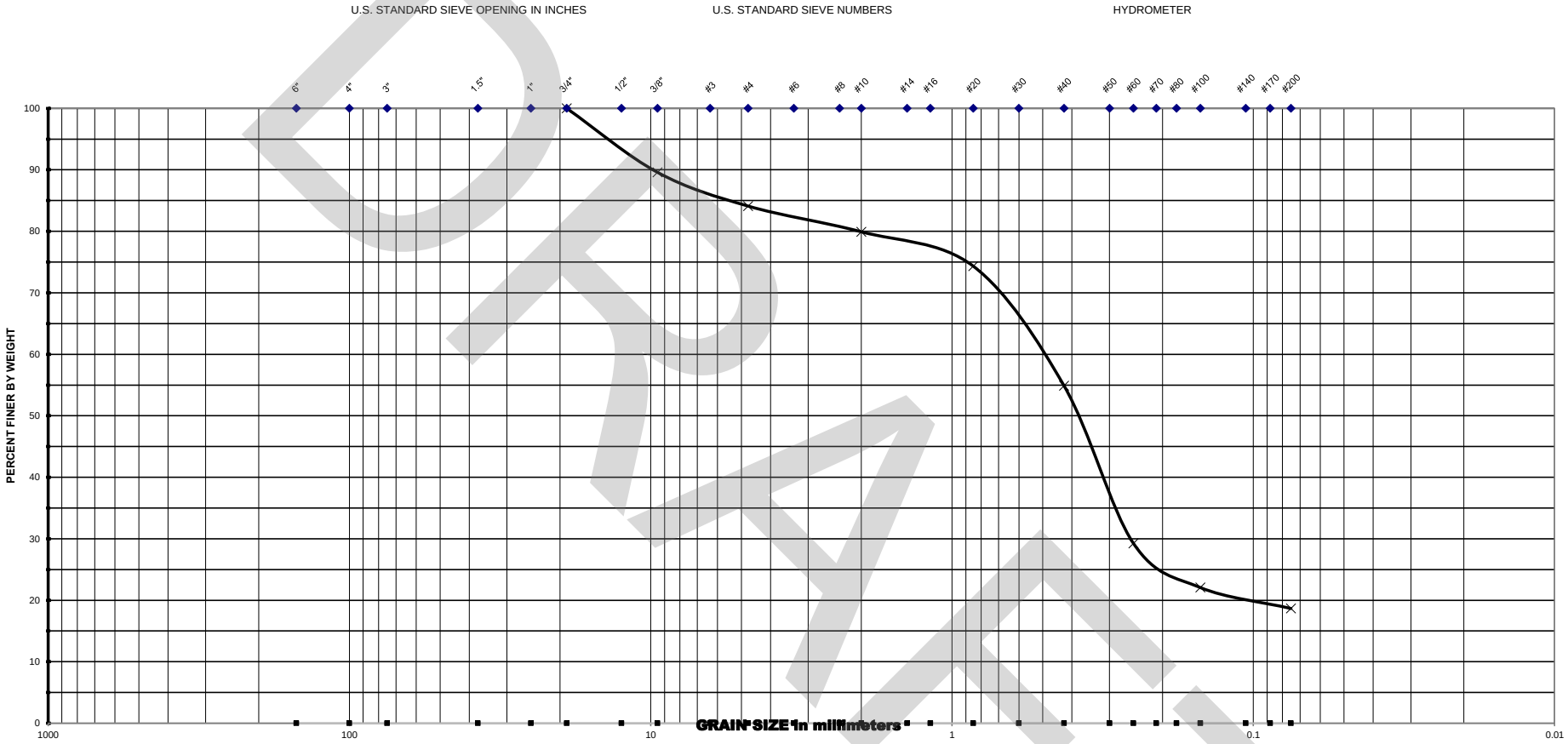

Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-18	8.0 - 10.0	A-2-4	26.7	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	89.6
#4	84.1
#10	79.9
#20	74.3
#40	54.9
#60	29.3
#100	22.1
#200	18.7

GCME

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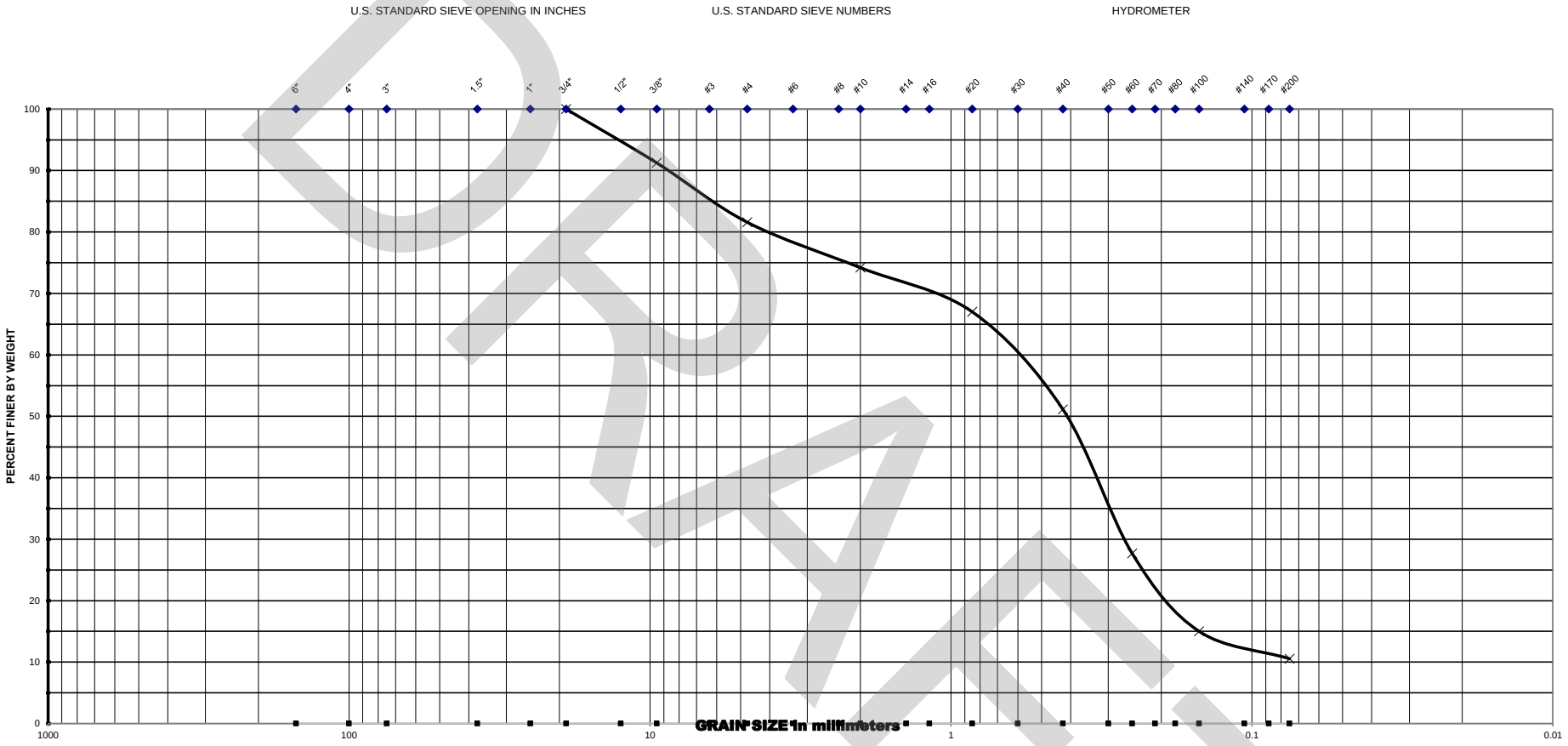

Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-18	10.0 - 12.0	A-2-4	25.6	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	91.3
#4	81.6
#10	74.2
#20	67.0
#40	51.1
#60	27.7
#100	15.0
#200	10.5

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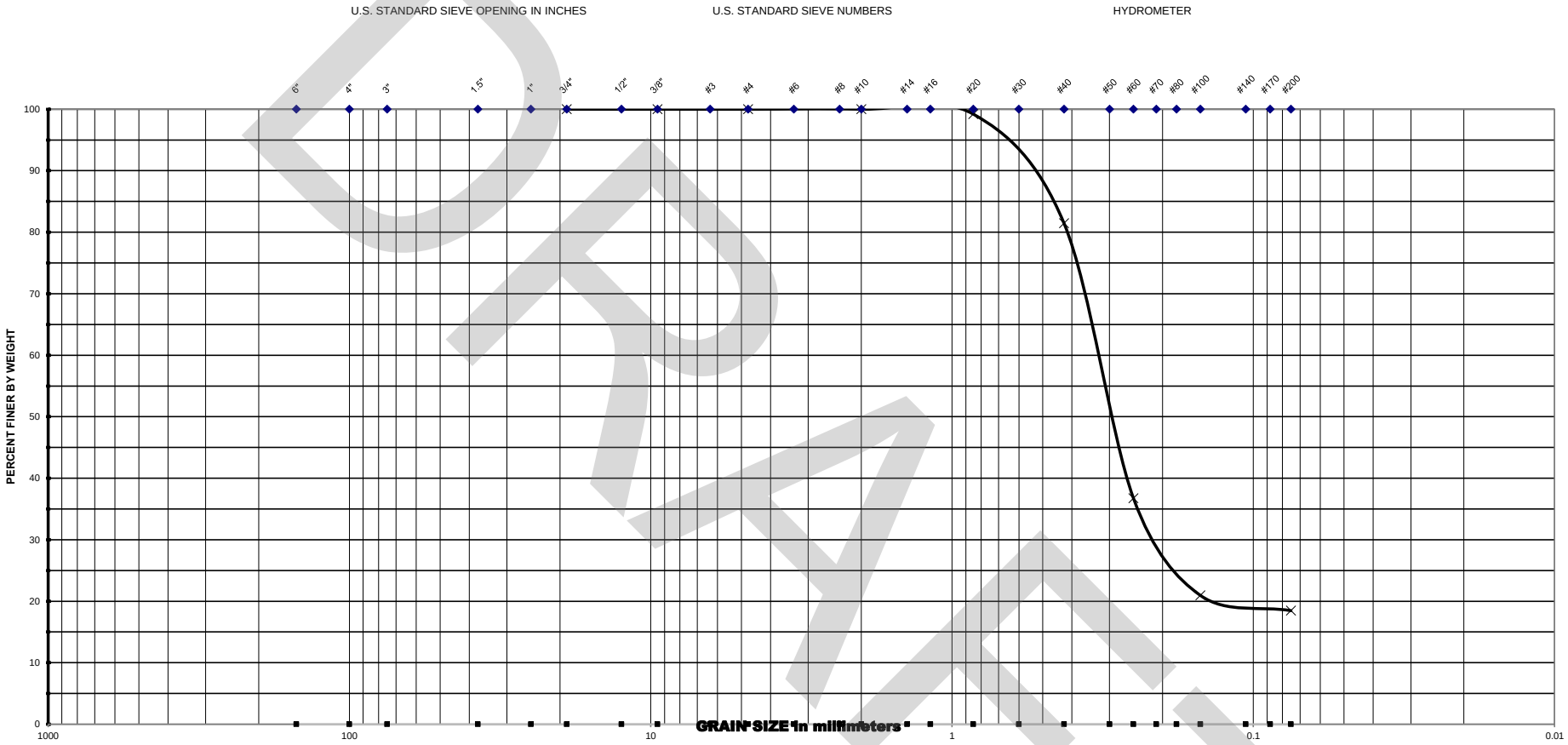

Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-19	8.0 - 10.0	A-2-6	22.5	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	100.0
#4	100.0
#10	100.0
#20	99.2
#40	81.5
#60	36.8
#100	21.0
#200	18.5

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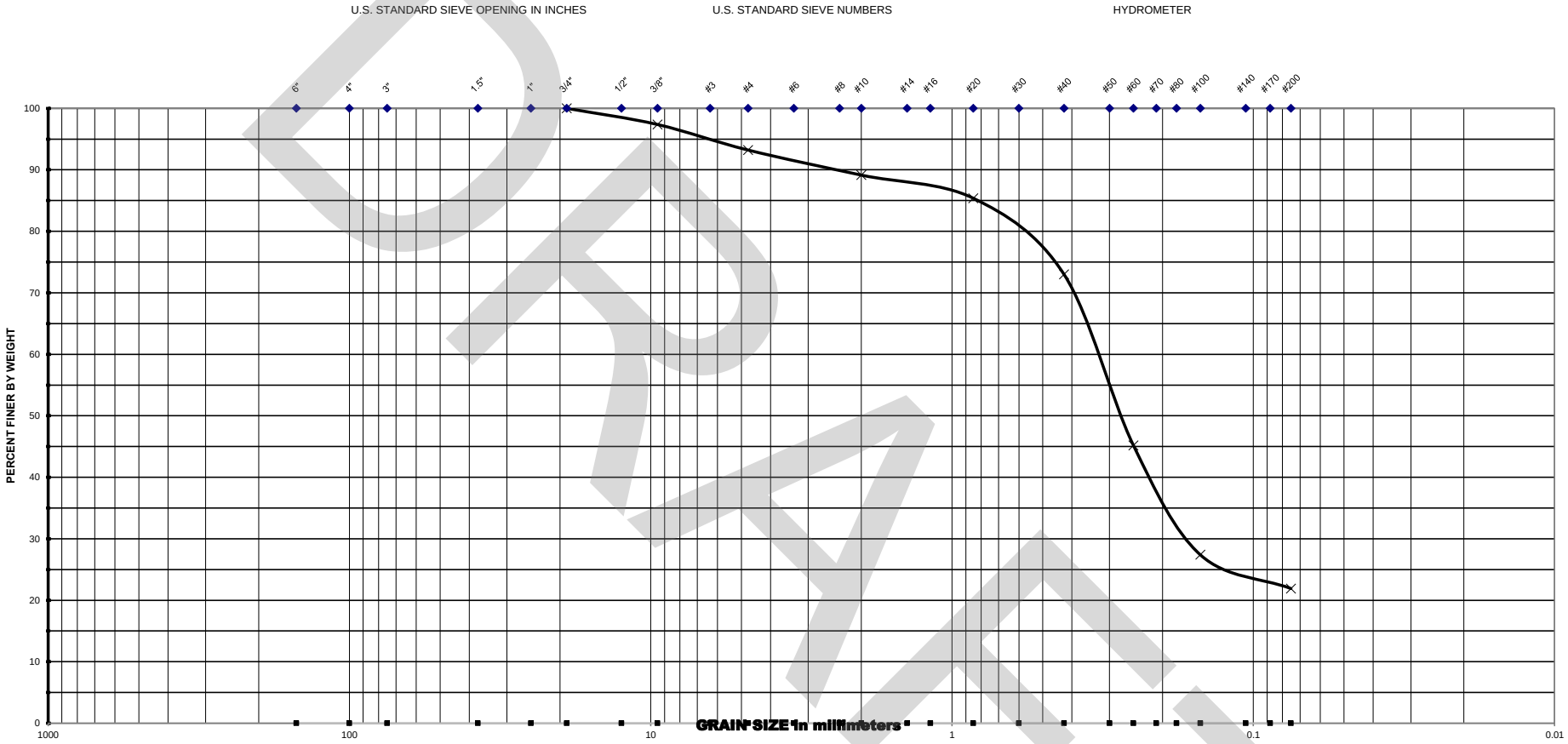

Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 3/21/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-20	0.0 - 2.0	A-2-4	17.8	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	97.4
#4	93.2
#10	89.1
#20	85.4
#40	73.0
#60	45.2
#100	27.4
#200	21.9

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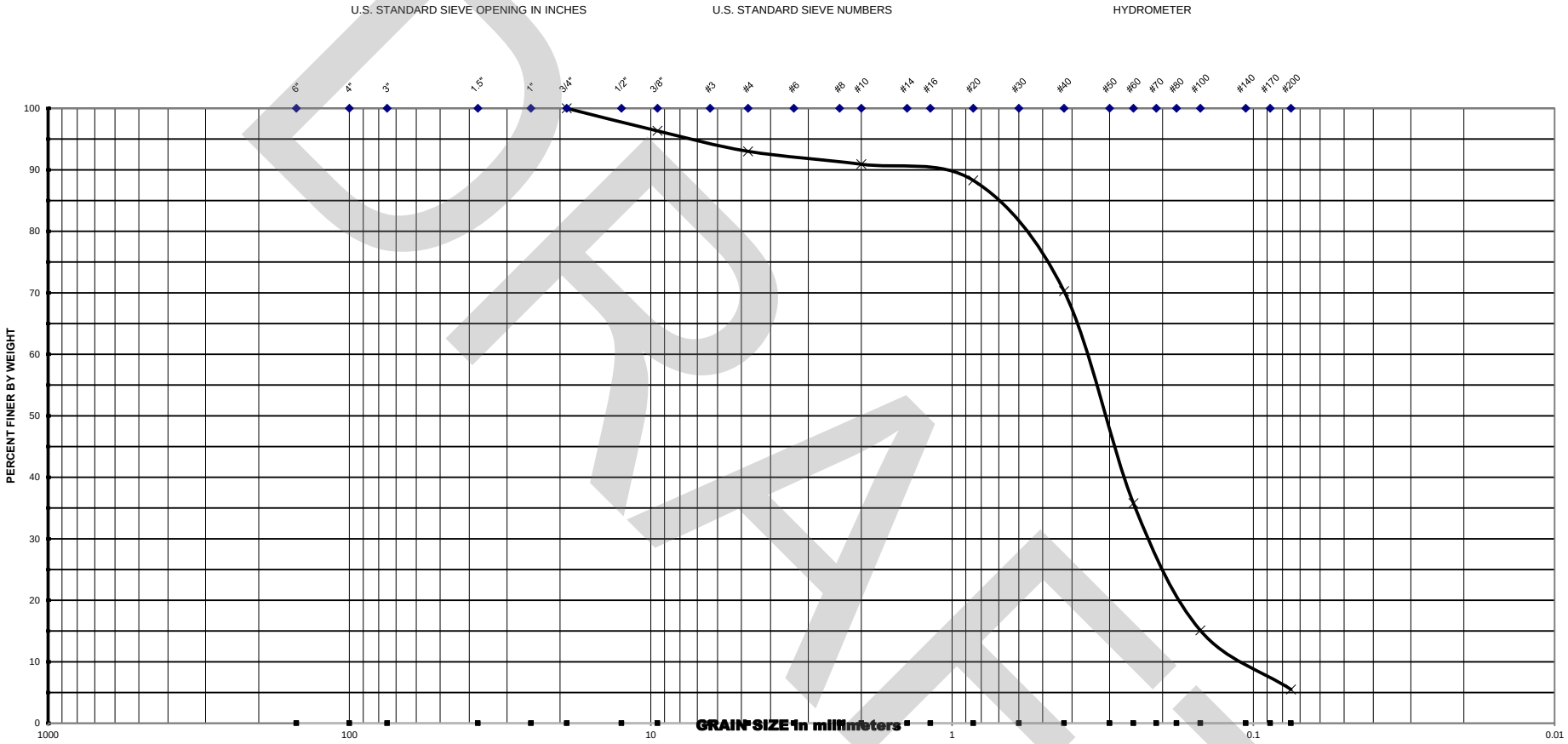


Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

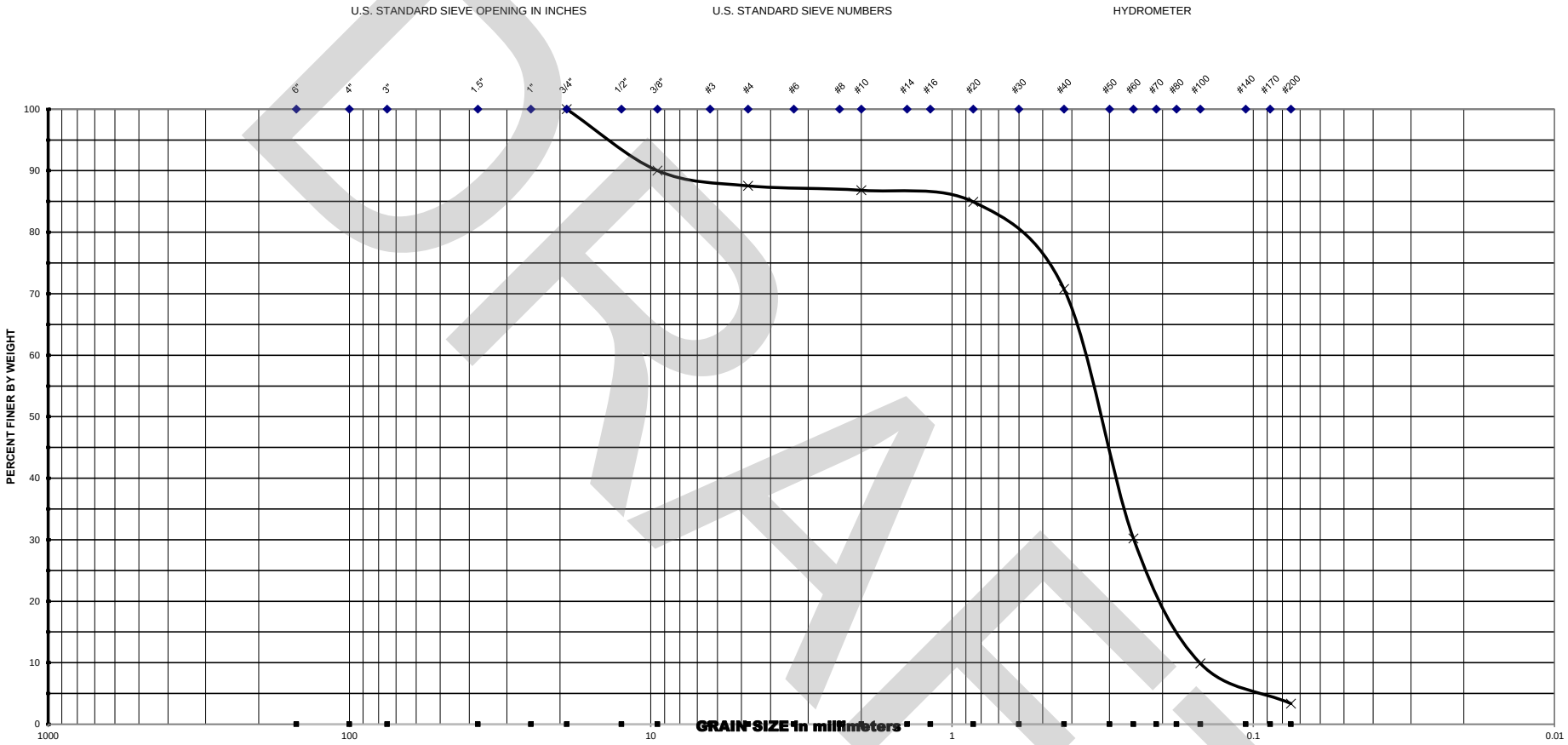
BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-20	13.5 - 15.0	A-3	17.3	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	96.3
#4	93.0
#10	90.9
#20	88.3
#40	70.3
#60	35.8
#100	15.1
#200	5.5

GCME

Geotechnical - Consulting - Engineering - Testing



Project Name : PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Project No. : 2000-01-16001 **Date :** 4/16/2018

BORING NO.	DEPTH INTERVAL [FT]	SOIL DESCRIPTION	MC	OC
DRIT-20	15.0 - 20.0	A-3	18.4	

Note : MC - Moisture Content (%)
OC - Organic Content (%)

U.S SIEVE NO.	CUMM. % PASSING
3/4"	100.0
3/8"	90.0
#4	87.5
#10	86.8
#20	84.9
#40	70.7
#60	30.2
#100	9.9
#200	3.4

TABLE - 2

SUMMARY OF CORROSION TEST RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

Boring No.	Soil Type	Sample	Depth Interval	pH	Resistivity (ohm-cm)	Chloride (ppm)	Sulfate (ppm)	Environmental Classification (Substructure)	
								Steel	Concrete
R-101B	A-3	Soil	8.0 - 10.0	8.1	9040	22.6	24.6	Slightly Aggressive	Slightly Aggressive
R-108	A-3	Soil	8.0 - 10.0	8.3	9600	4.4	17.6	Slightly Aggressive	Slightly Aggressive
RD-216	A-3	Soil	6.0 - 8.0	8.6	21400	4.0	5.2	Slightly Aggressive	Slightly Aggressive
R-219	A-3	Soil	8.0 - 10.0	8.2	6950	6.2	52.2	Slightly Aggressive	Slightly Aggressive
R-313	A-2-4	Soil	6.0 - 8.0	7.3	1570	4.5	549.0	Moderately Aggressive	Moderately Aggressive
DRIT-6	A-2-4	Soil	12.0 - 13.5	8.3	4460	2.8	104.0	Slightly Aggressive	Moderately Aggressive
DRIT-15	A-3	Soil	8.0 - 10.0	8.7	8120	2.8	50.1	Slightly Aggressive	Slightly Aggressive
DRIT-19	A-3	Soil	4.0 - 6.0	8.6	14300	2.8	2.8	Slightly Aggressive	Slightly Aggressive

Table 1.3.2-1 Criteria for Substructure Environmental Classifications

Classification	Environmental Condition	Units	Steel		Concrete	
			Water	Soil	Water	Soil
Extremely Aggressive (If any of these conditions exist)	pH		< 6.0		< 5.0	
	Cl	ppm	> 2000		> 2000	
	SO_4	ppm	N.A.		> 1500	> 2000
	Resistivity	Ohm-cm	< 1000		< 500	
Slightly Aggressive (If all of these conditions exist)	pH		> 7.0		> 6.0	
	Cl	ppm	<500		< 500	
	SO_4	ppm	N.A.		< 150	< 1000
	Resistivity	Ohm-cm	> 5000		> 3000	
Moderately Aggressive	This classification must be used at all sites not meeting requirements for either slightly aggressive or extremely aggressive environments.					
pH = acidity ($-\log_{10}H^+$; potential of Hydrogen), Cl = chloride content, SO_4 = Sulfate content.						

TABLE - 3

BOREHOLE PERMEABILITY TEST RESULTS

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

SFWMD METHODOLOGY

BHP No.	Date	Station	Offset	Bore Hole Dia. (in)	Depth of Hole (ft)	GWT Depth (ft)	Flow Rate Q [gal/min]	K [cfs/ft^2]	K [ft/day]
BHP-1	02/12/18	1083+54.46	-191	8.00	10.0	2.83	0.3000	1.29E-05	1.11
BHP-2	02/14/18	1085+44.05	160	8.00	10.0	3.42	0.3000	1.10E-05	0.95
BHP-3	02/14/18	1091+09.80	232	8.00	10.0	2.75	1.0000	4.40E-05	3.80
BHP-4	02/12/18	1097+30.83	-269	8.00	10.0	3.50	0.5000	1.81E-05	1.56
BHP-5	02/14/18	1100+15.12	129	8.00	10.0	4.17	0.5000	1.58E-05	1.36
BHP-6	02/09/18	60+99.13	90	8.00	10.0	4.67	0.3000	8.73E-06	0.75
BHP-7	02/09/18	94+51.70	-145	8.00	10.0	3.67	0.5000	1.74E-05	1.50
BHP-8	02/12/18	102+25.28	99	8.00	10.0	3.75	1.3800	4.72E-05	4.08
BHP-9	02/12/18	113+24.34	-156	8.00	10.0	7.00	1.0000	2.28E-05	1.97

TABLE - 4

Project Name: PD&E Study - Sawgrass (SR869) Interchange - US441 to Powerline Road

DOUBLE RING INFILTRATION TEST RESULTS SUMMARY

TEST NUMBER	BASELINE	STATION	OFFSET	GWT (ft)	Infiltration Rate Summary [inch/hour]	Infiltration Rate Summary [ft/day]
DRIT-1	SR-869	975+28.95	-121	GNE	2.2	4.3
DRIT-2	SR-869	975+31.02	128	GNE	2.4	4.9
DRIT-3	SR-869	995+34.94	-126	GNE	1.1	2.2
DRIT-4	SR-869	994+71.55	124	GNE	1.3	2.7
DRIT-5	SR-869	1025+49.21	-202	2.5	1.9	3.8
DRIT-6	SR-869	1030+08.98	149	3.5	1.3	2.7
DRIT-7	SR-869	1032+47.09	-277	2.5	4.3	8.6
DRIT-8	SR-869	1039+34.46	-841	GNE	3.2	6.5
DRIT-9	SR-869	1039+78.56	174	GNE	2.7	5.4
DRIT-10	SR-869	1042+62.43	702	GNE	4.3	8.6
DRIT-11	SR-869	1050+09.89	-217	1.0	1.1	2.2
DRIT-12	SR-869	1051+13.39	324	3.0	1.1	2.2
DRIT-13	SR-869	1083+54.46	-191	1.0	1.1	2.2
DRIT-14	SR-869	1085+44.05	160	GNE	1.3	2.7
DRIT-15	SR-869	1091+09.80	232	5.0	9.7	19.4
DRIT-16	SR-869	1097+30.83	-269	3.5	6.5	12.9
DRIT-17	SR-869	1100+15.12	129	GNE	8.6	17.3
DRIT-18	SR-869	102+25.28	99	GNE	4.3	8.6
DRIT-19	SR-869	113+24.34	-156	GNE	10.0	20.0
DRIT-20	SR-869	117+32.21	96	GNE	8.1	16.2

TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-1**
DATE:	1/31/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	71

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'3.64"N 80°13'20.48"W
STATION:	975+29
OFFSET:	-121.14
GROUND ELEVATION:	12.94

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-1-b	2A
2-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1500	3750		3.24	2.70	Partly Cloudy
2	15	30	1250	3750		2.70	2.70	Partly Cloudy
3	15	45	1250	3750		2.70	2.70	Partly Cloudy
4	15	60	1250	3500		2.70	2.52	Partly Cloudy
5	15	75	1250	3500		2.70	2.52	Partly Cloudy
6	15	90	1250	3500		2.70	2.52	Partly Cloudy
7	15	105	1250	3000		2.70	2.16	Partly Cloudy
8	15	120	1250	3000		2.70	2.16	Partly Cloudy
9	30	150	2250	6000		2.43	2.16	Partly Cloudy
10	30	180	2000	6000		2.16	2.16	Partly Cloudy
11	30	210	2000	6000		2.16	2.16	Partly Cloudy
12	30	240	2000	6000		2.16	2.16	Partly Cloudy
13	30	270	2000	6000		2.16	2.16	Partly Cloudy
14	30	300	2000	6000		2.16	2.16	Partly Cloudy
15	30	330	2000	6000		2.16	2.16	Partly Cloudy
16	30	360	2000	6000		2.16	2.16	Partly Cloudy

DOUBLE RING INFILTRATION TEST RESULTS

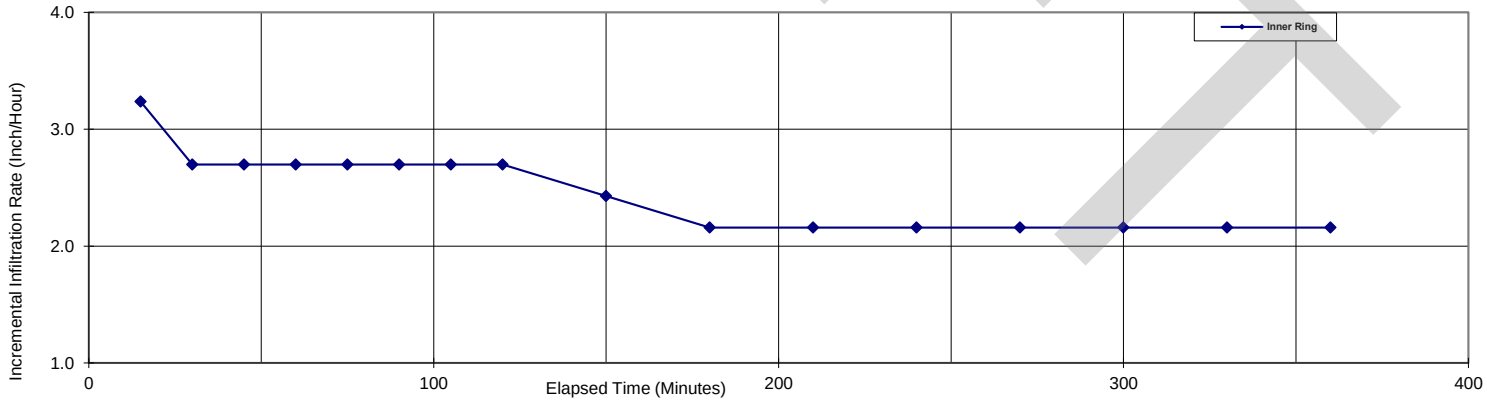


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-2**
DATE:	2/1/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	70

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'1.27"N 80°13'20.84"W
STATION:	975+31
OFFSET:	128.26
GROUND ELEVATION:	11.45

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-1-b	2A
2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1750	4500		3.78	3.24	Sunny
2	15	30	1500	4500		3.24	3.24	Sunny
3	15	45	1500	4500		3.24	3.24	Sunny
4	15	60	1500	4500		3.24	3.24	Sunny
5	15	75	1500	4250		3.24	3.06	Sunny
6	15	90	1250	4250		2.70	3.06	Sunny
7	15	105	1250	4250		2.70	3.06	Sunny
8	15	120	1250	4250		2.70	3.06	Sunny
9	30	150	2500	8000		2.70	2.88	Sunny
10	30	180	2500	8000		2.70	2.88	Sunny
11	30	210	2500	8000		2.70	2.88	Sunny
12	30	240	2500	8000		2.70	2.88	Sunny
13	30	270	2500	8000		2.70	2.88	Sunny
14	30	300	2250	8000		2.43	2.88	Sunny
15	30	330	2250	8000		2.43	2.88	Sunny
16	30	360	2250	8000		2.43	2.88	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

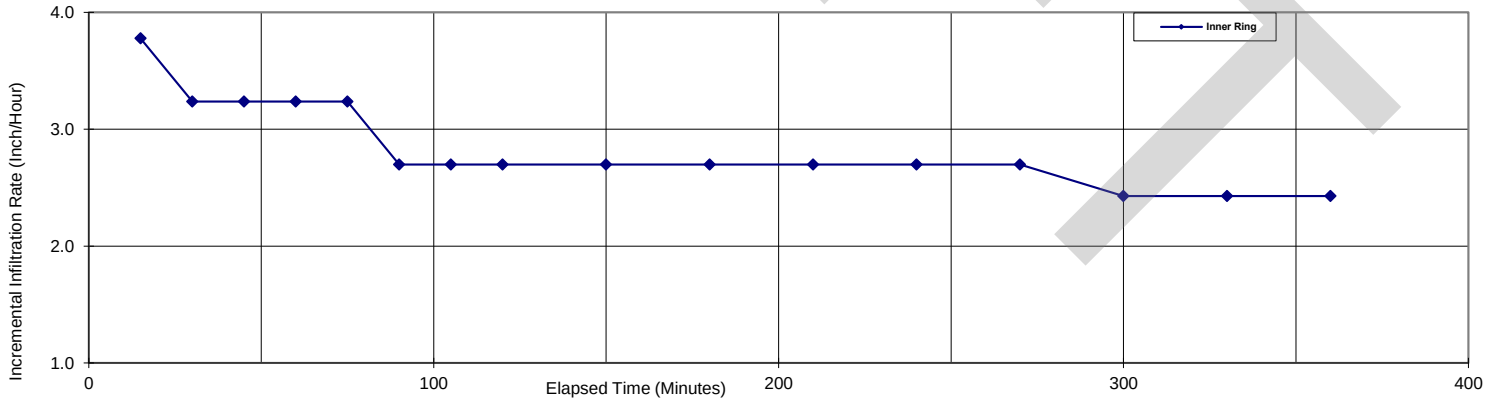


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-3**
DATE:	1/29/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	72

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'3.40"N 80°12'58.40"W
STATION:	995+35
OFFSET:	-126.35
GROUND ELEVATION:	12.02

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-1-b	2A
2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1000	2000		2.16	1.44	Sunny
2	15	30	1000	2000		2.16	1.44	Sunny
3	15	45	1000	2000	71	2.16	1.44	Sunny
4	15	60	1000	2000		2.16	1.44	Sunny
5	15	75	1000	2000		2.16	1.44	Sunny
6	15	90	500	1000		1.08	0.72	Sunny
7	15	105	500	1000		1.08	0.72	Sunny
8	15	120	500	1000		1.08	0.72	Sunny
9	30	150	1000	2000		1.08	0.72	Sunny
10	30	180	1000	2000		1.08	0.72	Sunny
11	30	210	1000	2000		1.08	0.72	Sunny
12	30	240	1000	2000		1.08	0.72	Sunny
13	30	270	1000	2000		1.08	0.72	Sunny
14	30	300	1000	2000		1.08	0.72	Sunny
15	30	330	1000	2000		1.08	0.72	Sunny
16	30	360	1000	2000		1.08	0.72	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

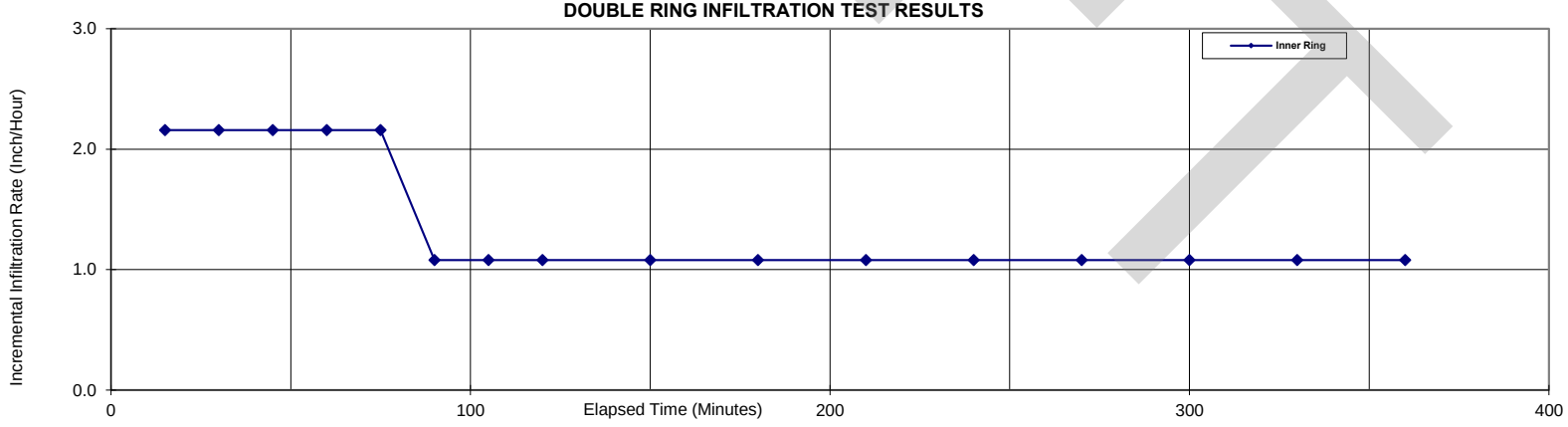


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-4**
DATE:	2/2/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	72

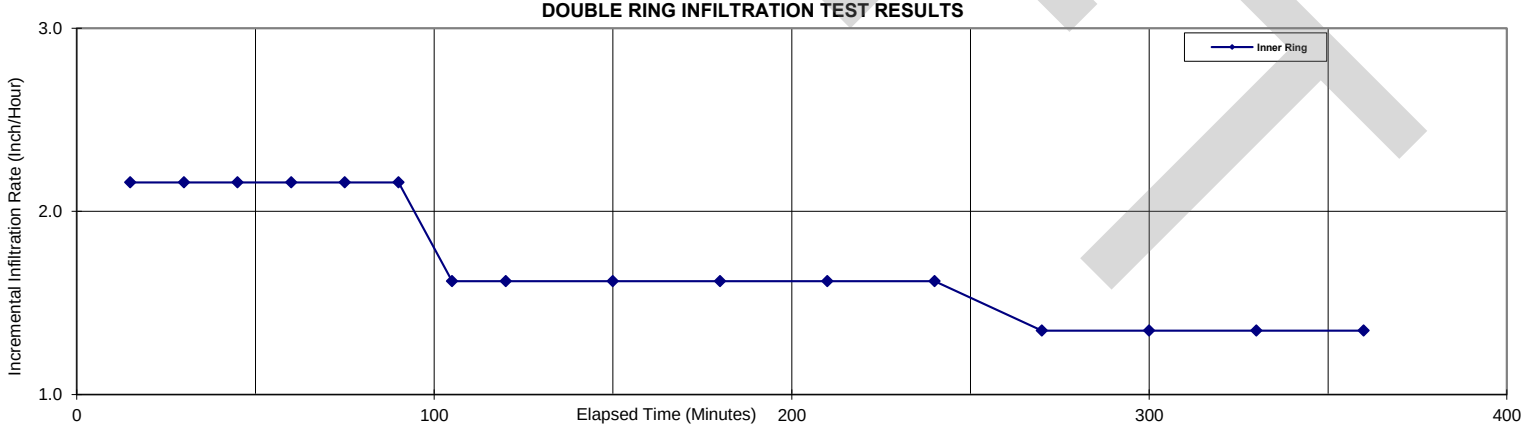
PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'0.97"N 80°12'58.83"W
STATION:	994+72
OFFSET:	124.09
GROUND ELEVATION:	11.18

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1000	3500		2.16	2.52	Overcast
2	15	30	1000	3250		2.16	2.34	Overcast
3	15	45	1000	3250		2.16	2.34	Overcast
4	15	60	1000	3000		2.16	2.16	Overcast
5	15	75	1000	3000		2.16	2.16	Overcast
6	15	90	1000	2500		2.16	1.80	Overcast
7	15	105	750	2500		1.62	1.80	Overcast
8	15	120	750	2500		1.62	1.80	Overcast
9	30	150	1500	4750		1.62	1.71	Overcast
10	30	180	1500	4750		1.62	1.71	Overcast
11	30	210	1500	4500		1.62	1.62	Sunny
12	30	240	1500	4500		1.62	1.62	Sunny
13	30	270	1250	4500		1.35	1.62	Sunny
14	30	300	1250	4500		1.35	1.62	Sunny
15	30	330	1250	4500		1.35	1.62	Sunny
16	30	360	1250	4500		1.35	1.62	Sunny

DOUBLE RING INFILTRATION TEST RESULTS



GCME Project No.: 2000-01-16001

TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-5**
DATE:	1/29/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	71

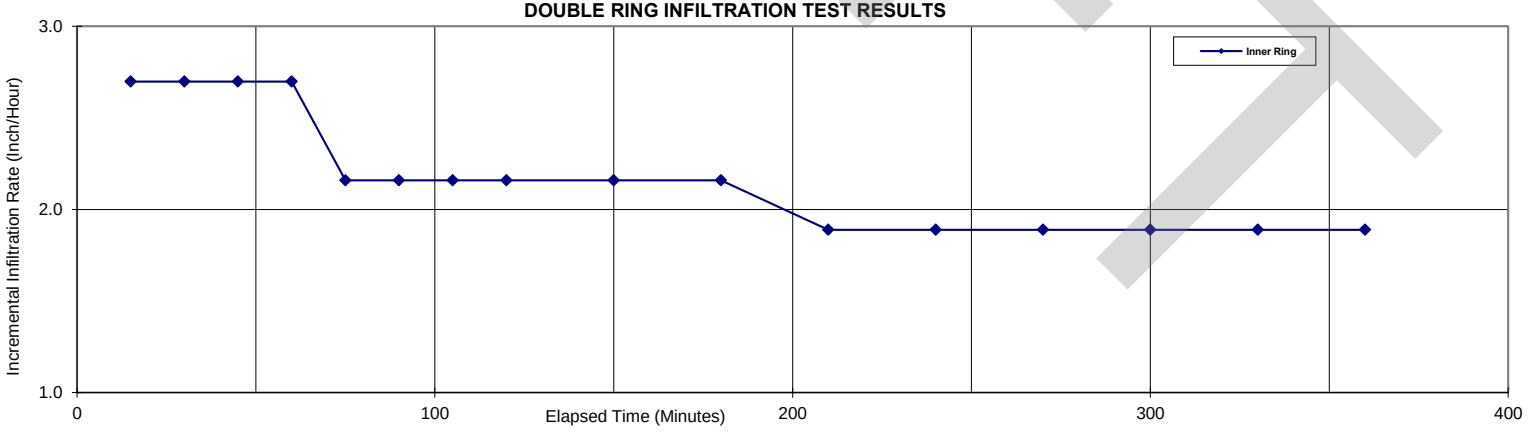
PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'2.33"N 80°12'25.31"W
STATION:	1025+49
OFFSET:	-201.57
GROUND ELEVATION:	11.2

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-4	A-2-4	3
4-5	A-3	2

DEPTH TO WATER TABLE (Feet):	2.5				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1250	3500		2.70	2.52	Overcast
2	15	30	1250	3250		2.70	2.34	Overcast
3	15	45	1250	3250		2.70	2.34	Overcast
4	15	60	1250	3000		2.70	2.16	Overcast
5	15	75	1000	3000		2.16	2.16	Overcast
6	15	90	1000	3000		2.16	2.16	Overcast
7	15	105	1000	3000		2.16	2.16	Overcast
8	15	120	1000	3000		2.16	2.16	Overcast
9	30	150	2000	5500		2.16	1.98	Overcast
10	30	180	2000	5500		2.16	1.98	Overcast
11	30	210	1750	5500		1.89	1.98	Overcast
12	30	240	1750	5500		1.89	1.98	Overcast
13	30	270	1750	5500		1.89	1.98	Overcast
14	30	300	1750	5500		1.89	1.98	Overcast
15	30	330	1750	5500		1.89	1.98	Overcast
16	30	360	1750	5500		1.89	1.98	Overcast

DOUBLE RING INFILTRATION TEST RESULTS



GCME Project No.: 2000-01-16001

TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-6**
DATE:	2/7/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	5
GROUND TEMPERATURE (°F):	73

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°17'58.69"N 80°12'20.98"W
STATION:	1030+09
OFFSET:	148.92
GROUND ELEVATION:	12.85

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-2-4	3
2-4	Limestone	4
4-5	A-3	2

DEPTH TO WATER TABLE (Feet):	3.5				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1000	2750		2.16	1.98	Sunny
2	15	30	800	2750		1.73	1.98	Sunny
3	15	45	800	2750		1.73	1.98	Sunny
4	15	60	800	2750		1.73	1.98	Sunny
5	15	75	800	2750		1.73	1.98	Sunny
6	15	90	800	2500		1.73	1.80	Sunny
7	15	105	800	2500		1.73	1.80	Sunny
8	15	120	800	2500		1.73	1.80	Sunny
9	30	150	1500	4500		1.62	1.62	Sunny
10	30	180	1500	4500		1.62	1.62	Sunny
11	30	210	1500	4500		1.62	1.62	Sunny
12	30	240	1500	4250		1.62	1.53	Sunny
13	30	270	1500	4250		1.62	1.53	Sunny
14	30	300	1250	4250		1.35	1.53	Sunny
15	30	330	1250	4250		1.35	1.53	Sunny
16	30	360	1250	4250		1.35	1.53	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

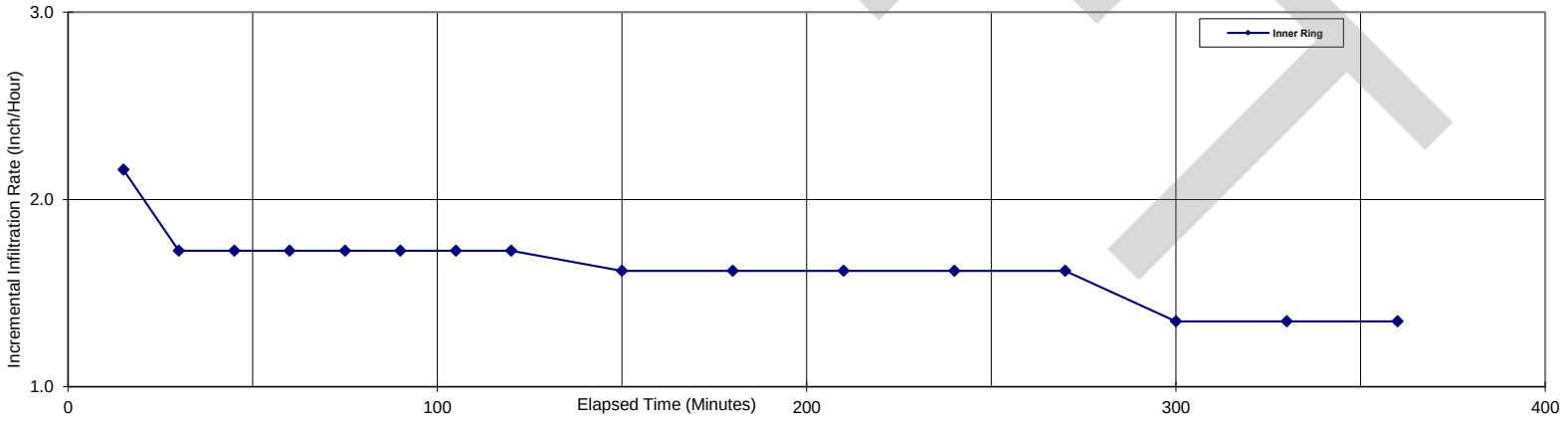


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-7**
DATE:	1/25/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	70

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'3.20"N 80°12'17.30"W
STATION:	1032+47
OFFSET:	-276.5
GROUND ELEVATION:	11.93

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-4	A-3	2
4-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	2.5				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	3000	5000	72	6.47	3.60	Sunny
2	15	30	3000	5000		6.47	3.60	Sunny
3	15	45	3000	5000		6.47	3.60	Sunny
4	15	60	3000	5000		6.47	3.60	Sunny
5	15	75	3000	5000		6.47	3.60	Sunny
6	15	90	2000	4000		4.32	2.88	Sunny
7	15	105	2000	4000		4.32	2.88	Sunny
8	15	120	2000	4000		4.32	2.88	Sunny
9	30	150	4000	8000		4.32	2.88	Sunny
10	30	180	4000	8000		4.32	2.88	Sunny
11	30	210	4000	8000		4.32	2.88	Sunny
12	30	240	4000	8000		4.32	2.88	Sunny
13	30	270	4000	8000		4.32	2.88	Sunny
14	30	300	4000	8000		4.32	2.88	Sunny
15	30	330	4000	8000		4.32	2.88	Sunny
16	30	360	4000	8000		4.32	2.88	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

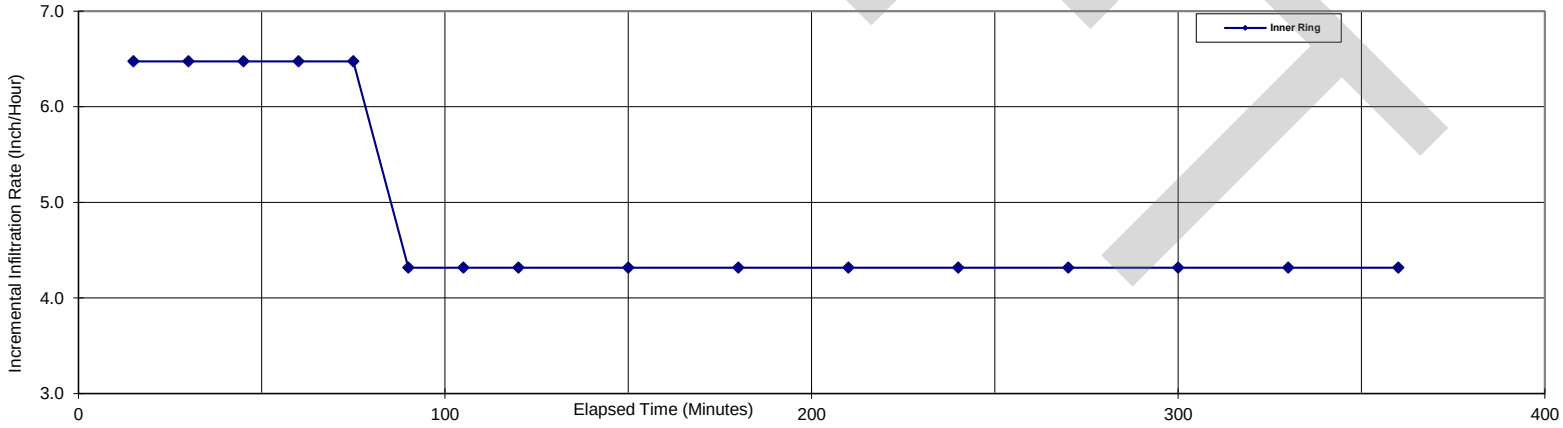


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-8**
DATE:	1/25/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	70

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'8.63"N 80°12'9.97"W
STATION:	1039+34
OFFSET:	-840.72
GROUND ELEVATION:	13.2

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-4	A-3	2
4-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	N/A			
PENETRATION OF RINGS INTO GROUND (Inches):	INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):	INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):	INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):	INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0			72			
1	15	15	1750	6000		3.78	4.32	Overcast
2	15	30	1750	6000		3.78	4.32	Overcast
3	15	45	1750	5500		3.78	3.96	Overcast
4	15	60	1750	5500		3.78	3.96	Overcast
5	15	75	1500	5500		3.24	3.96	Overcast
6	15	90	1500	5500		3.24	3.96	Overcast
7	15	105	1500	5500		3.24	3.96	Overcast
8	15	120	1500	5500		3.24	3.96	Overcast
9	30	150	3000	10500		3.24	3.78	Overcast
10	30	180	3000	10500		3.24	3.78	Overcast
11	30	210	3000	10000		3.24	3.60	Overcast
12	30	240	3000	10000		3.24	3.60	Overcast
13	30	270	3000	10000		3.24	3.60	Overcast
14	30	300	3000	10000		3.24	3.60	Overcast
15	30	330	3000	10000		3.24	3.60	Overcast
16	30	360	3000	10000		3.24	3.60	Overcast

DOUBLE RING INFILTRATION TEST RESULTS

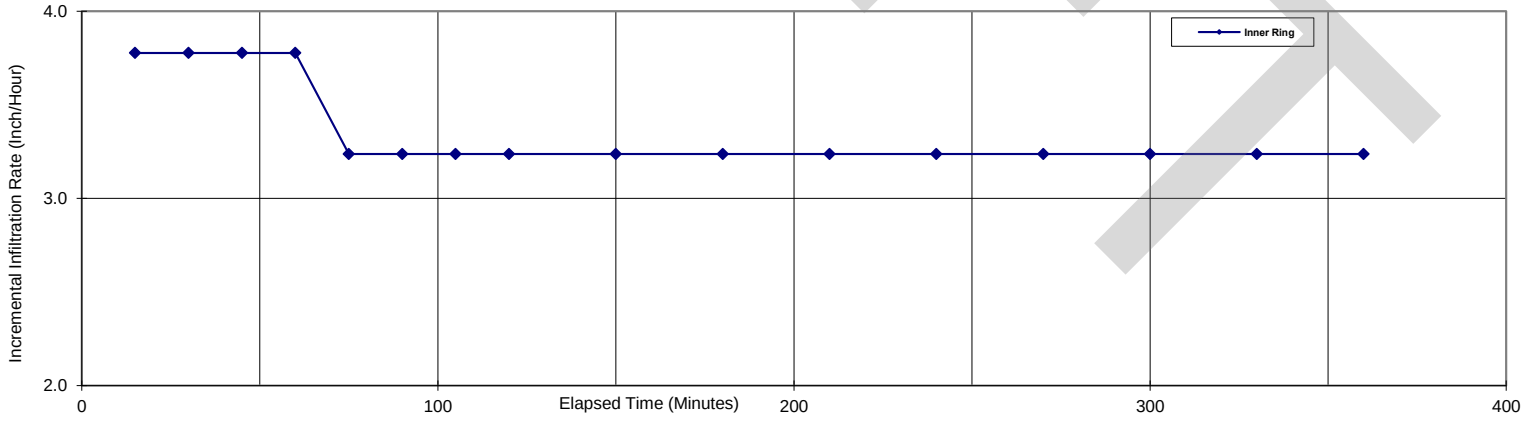


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-9**
DATE:	2/8/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	5
GROUND TEMPERATURE (°F):	74

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°17'58.34N 80°12'9.69"W
STATION:	1039+79
OFFSET:	174.08
GROUND ELEVATION:	14.32

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-4	A-3	2
4-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						Sunny
1	15	15	1500	4500		3.24	3.24	Sunny
2	15	30	1500	4500		3.24	3.24	Sunny
3	15	45	1500	4500		3.24	3.24	Sunny
4	15	60	1500	4500		3.24	3.24	Sunny
5	15	75	1500	4500		3.24	3.24	Sunny
6	15	90	1500	4250		3.24	3.06	Sunny
7	15	105	1500	4250		3.24	3.06	Sunny
8	15	120	1500	4250		3.24	3.06	Sunny
9	30	150	2750	8000		2.97	2.88	Sunny
10	30	180	2750	8000		2.97	2.88	Sunny
11	30	210	2750	8000		2.97	2.88	Sunny
12	30	240	2500	8000		2.70	2.88	Sunny
13	30	270	2500	8000		2.70	2.88	Sunny
14	30	300	2500	8000		2.70	2.88	Sunny
15	30	330	2500	8000		2.70	2.88	Sunny
16	30	360	2500	8000		2.70	2.88	Sunny

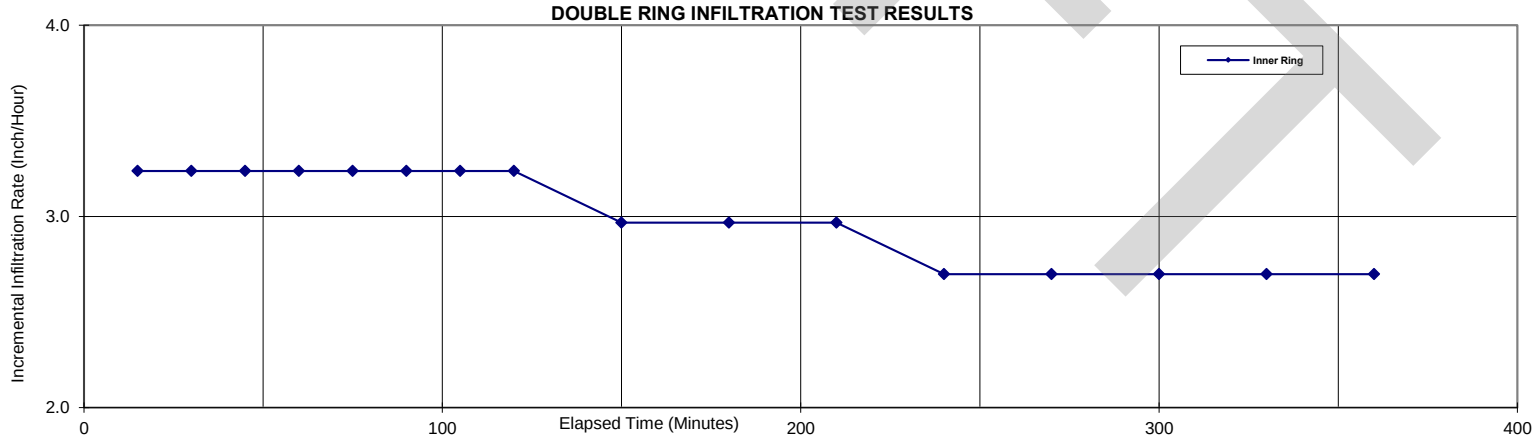


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-10**
DATE:	2/15/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	75

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°17'53.28N 80°12'6.87"W
STATION:	1042+62
OFFSET:	702.3
GROUND ELEVATION:	14

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-3	A-3	2
3-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						Sunny
1	15	15	2500	8000		5.40	5.76	Sunny
2	15	30	2400	8000		5.18	5.76	Sunny
3	15	45	2400	8000		5.18	5.76	Sunny
4	15	60	2250	7750		4.86	5.58	Sunny
5	15	75	2250	7750		4.86	5.58	Sunny
6	15	90	2000	7750		4.32	5.58	Sunny
7	15	105	2000	7750		4.32	5.58	Sunny
8	15	120	2000	7750		4.32	5.58	Sunny
9	30	150	4000	15250		4.32	5.49	Sunny
10	30	180	4000	15250		4.32	5.49	Sunny
11	30	210	4000	15250		4.32	5.49	Sunny
12	30	240	4000	15000		4.32	5.40	Sunny
13	30	270	4000	15000		4.32	5.40	Sunny
14	30	300	4000	15000		4.32	5.40	Sunny
15	30	330	4000	15000		4.32	5.40	Sunny
16	30	360	4000	15000		4.32	5.40	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

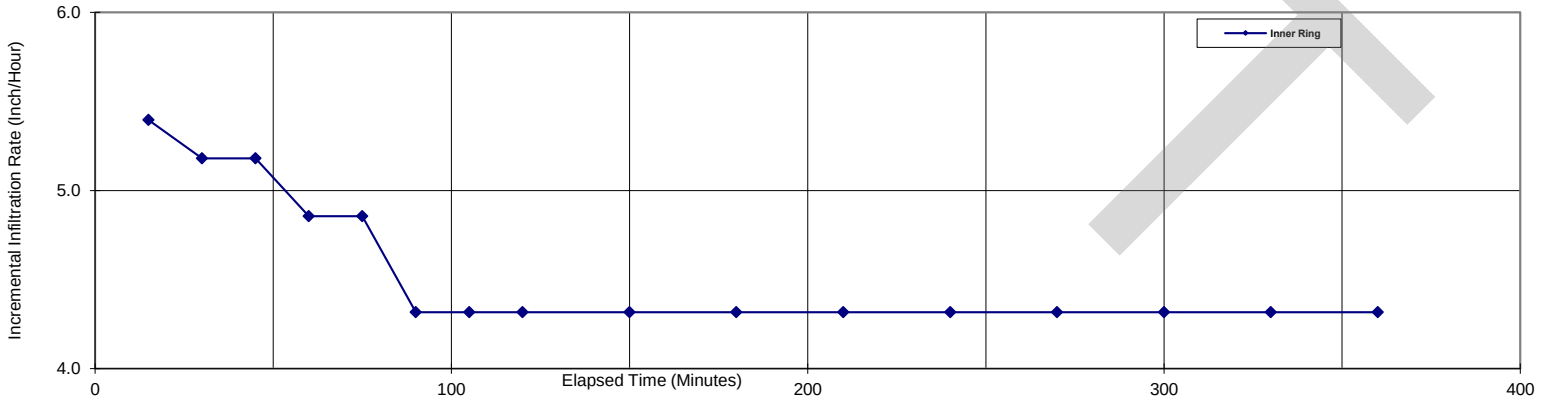


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-11**
DATE:	1/24/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	70

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'2.10"N 80°11'57.90"W
STATION:	1050+10
OFFSET:	-217.2
GROUND ELEVATION:	10.94

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-4	A-3	2
4-5	A-1-b	2A

DEPTH TO WATER TABLE (Feet):	1.0				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	1000	2000	76	2.16	1.44	Sunny
2	15	30	1000	2000		2.16	1.44	Sunny
3	15	45	1000	2000		2.16	1.44	Sunny
4	15	60	1000	2000		2.16	1.44	Sunny
5	15	75	1000	2000		2.16	1.44	Sunny
6	15	90	500	1000		1.08	0.72	Sunny
7	15	105	500	1000		1.08	0.72	Sunny
8	15	120	500	1000		1.08	0.72	Sunny
9	30	150	1000	2000		1.08	0.72	Sunny
10	30	180	1000	2000		1.08	0.72	Sunny
11	30	210	1000	2000		1.08	0.72	Sunny
12	30	240	1000	2000	80	1.08	0.72	Sunny
13	30	270	1000	2000		1.08	0.72	Sunny
14	30	300	1000	2000		1.08	0.72	Sunny
15	30	330	1000	2000		1.08	0.72	Sunny
16	30	360	1000	2000		1.08	0.72	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

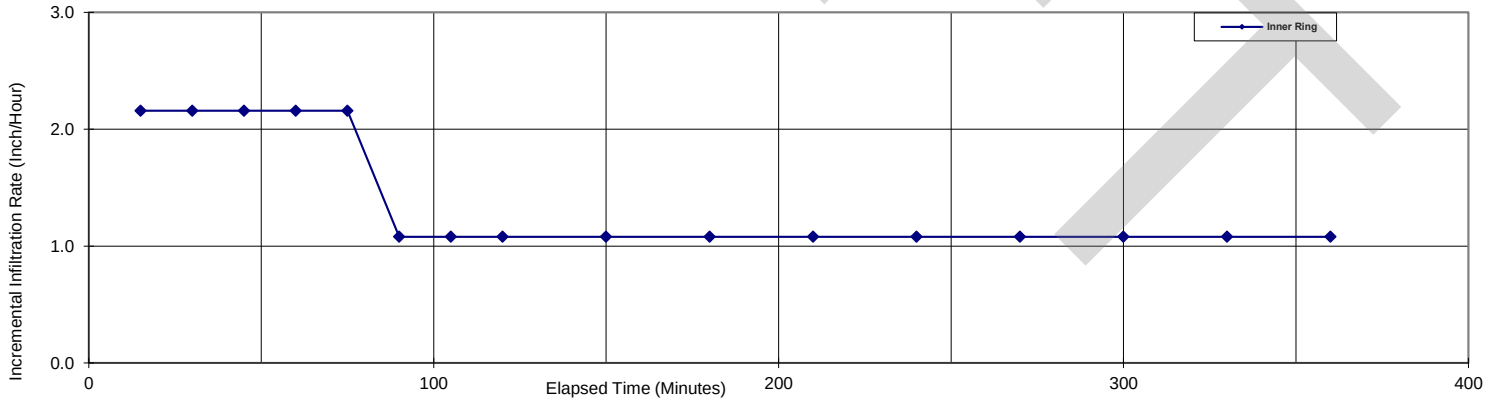


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-12**
DATE:	2/9/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	5
GROUND TEMPERATURE (°F):	74

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°17'57.08"N 80°11'57.31"W
STATION:	1051+13
OFFSET:	324.06
GROUND ELEVATION:	12.11

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	3.0				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	650	2000	76	1.40	1.44	Sunny
2	15	30	600	2000		1.29	1.44	Sunny
3	15	45	500	2000		1.08	1.44	Sunny
4	15	60	500	2000		1.08	1.44	Sunny
5	15	75	500	1750		1.08	1.26	Sunny
6	15	90	500	1750		1.08	1.26	Sunny
7	15	105	500	1750		1.08	1.26	Sunny
8	15	120	500	1750		1.08	1.26	Sunny
9	30	150	1000	3250		1.08	1.17	Sunny
10	30	180	1000	3250		1.08	1.17	Sunny
11	30	210	1000	3250		1.08	1.17	Sunny
12	30	240	1000	3250	80	1.08	1.17	Sunny
13	30	270	1000	3250		1.08	1.17	Sunny
14	30	300	1000	3250		1.08	1.17	Sunny
15	30	330	1000	3250		1.08	1.17	Sunny
16	30	360	1000	3250		1.08	1.17	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

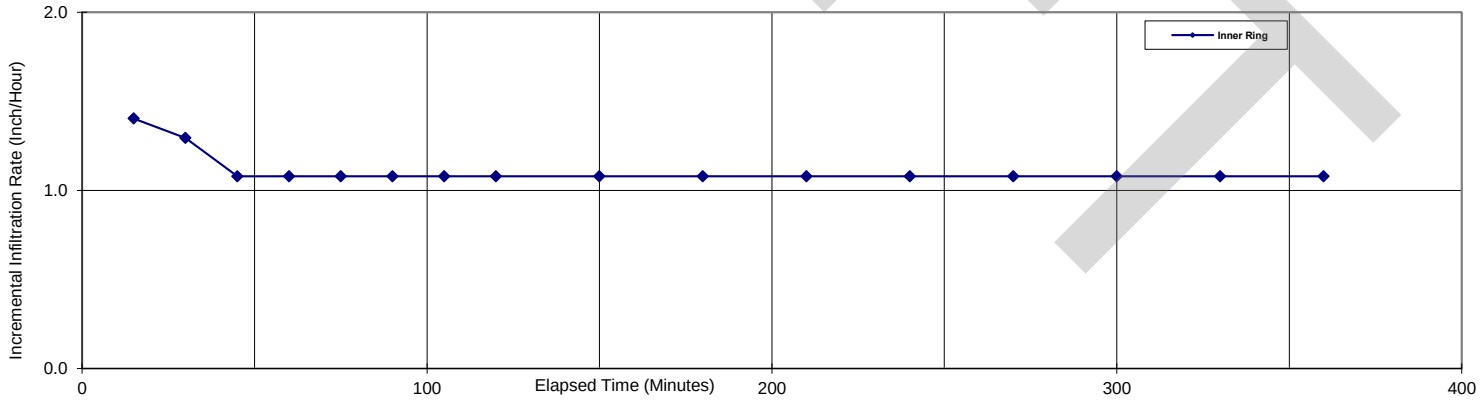


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-13**
DATE:	1/24/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	71

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'3.06"N 80°11'21.91"W
STATION:	1083+54
OFFSET:	-190.5
GROUND ELEVATION:	11.3

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-4	A-2-4	3
4-5	A-1-b	2A

DEPTH TO WATER TABLE (Feet):	1.0				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0			72			
1	15	15	500	1750		1.08	1.26	Overcast
2	15	30	500	1750		1.08	1.26	Overcast
3	15	45	500	1750		1.08	1.26	Overcast
4	15	60	500	1750		1.08	1.26	Overcast
5	15	75	500	1500		1.08	1.08	Overcast
6	15	90	500	1500		1.08	1.08	Overcast
7	15	105	500	1500		1.08	1.08	Overcast
8	15	120	500	1500		1.08	1.08	Overcast
9	30	150	1000	3000		1.08	1.08	Overcast
10	30	180	1000	3000		1.08	1.08	Overcast
11	30	210	1000	3000		1.08	1.08	Overcast
12	30	240	1000	3000		1.08	1.08	Overcast
13	30	270	1000	3000		1.08	1.08	Overcast
14	30	300	1000	3000		1.08	1.08	Overcast
15	30	330	1000	3000		1.08	1.08	Overcast
16	30	360	1000	3000		1.08	1.08	Overcast

DOUBLE RING INFILTRATION TEST RESULTS

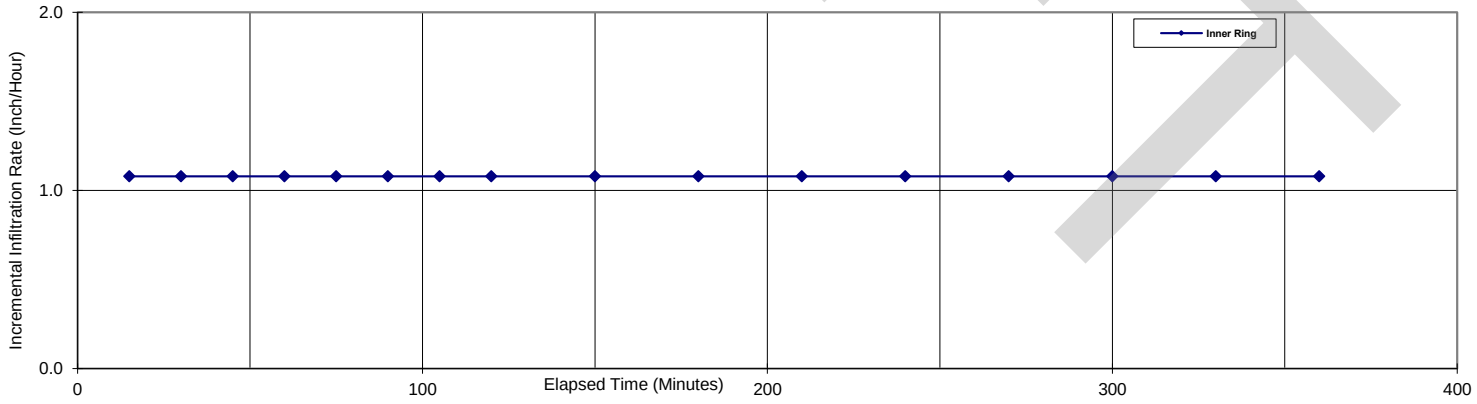


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-14**
DATE:	2/12/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	76

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'0.01"N 80°11'19.30"W
STATION:	1085+44
OFFSET:	160.29
GROUND ELEVATION:	12.96

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	N/A			
PENETRATION OF RINGS INTO GROUND (Inches):	INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):	INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):	INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):	INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	750	2750		1.62	1.98	Sunny
2	15	30	750	2750		1.62	1.98	Sunny
3	15	45	650	2750		1.40	1.98	Sunny
4	15	60	650	2750		1.40	1.98	Sunny
5	15	75	650	2500		1.40	1.80	Sunny
6	15	90	650	2500		1.40	1.80	Sunny
7	15	105	650	2400		1.40	1.73	Sunny
8	15	120	650	2400		1.40	1.73	Sunny
9	30	150	1250	4500		1.35	1.62	Sunny
10	30	180	1250	4500		1.35	1.62	Sunny
11	30	210	1250	4500		1.35	1.62	Sunny
12	30	240	1250	4500		1.35	1.62	Sunny
13	30	270	1250	4500		1.35	1.62	Sunny
14	30	300	1250	4500		1.35	1.62	Sunny
15	30	330	1250	4500		1.35	1.62	Sunny
16	30	360	1250	4500		1.35	1.62	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

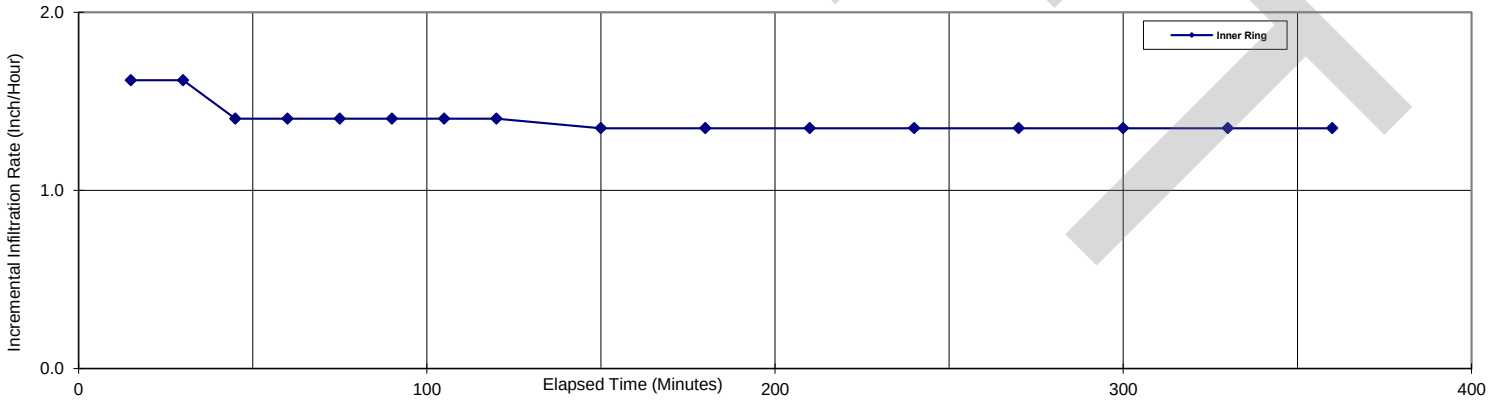


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-15**
DATE:	2/13/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	76

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'0.49"N 80°11'12.96"W
STATION:	1091+10
OFFSET:	231.76
GROUND ELEVATION:	12.2

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-4	A-1-b	2A
4-5	A-2-4	3

DEPTH TO WATER TABLE (Feet):	5.0			
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER: 6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER: 24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER: 0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR: 339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	5000	14750		10.79	10.61	Sunny
2	15	30	5000	14500		10.79	10.43	Sunny
3	15	45	5000	14500		10.79	10.43	Sunny
4	15	60	5000	14500		10.79	10.43	Sunny
5	15	75	5000	14500		10.79	10.43	Sunny
6	15	90	4750	14000		10.25	10.07	Sunny
7	15	105	4750	14000		10.25	10.07	Sunny
8	15	120	4750	14000		10.25	10.07	Sunny
9	30	150	9000	27750		9.71	9.98	Sunny
10	30	180	9000	27750		9.71	9.98	Sunny
11	30	210	9000	27750		9.71	9.98	Sunny
12	30	240	9000	27500		9.71	9.89	Sunny
13	30	270	9000	27500		9.71	9.89	Sunny
14	30	300	9000	27500		9.71	9.89	Sunny
15	30	330	9000	27500		9.71	9.89	Sunny
16	30	360	9000	27500		9.71	9.89	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

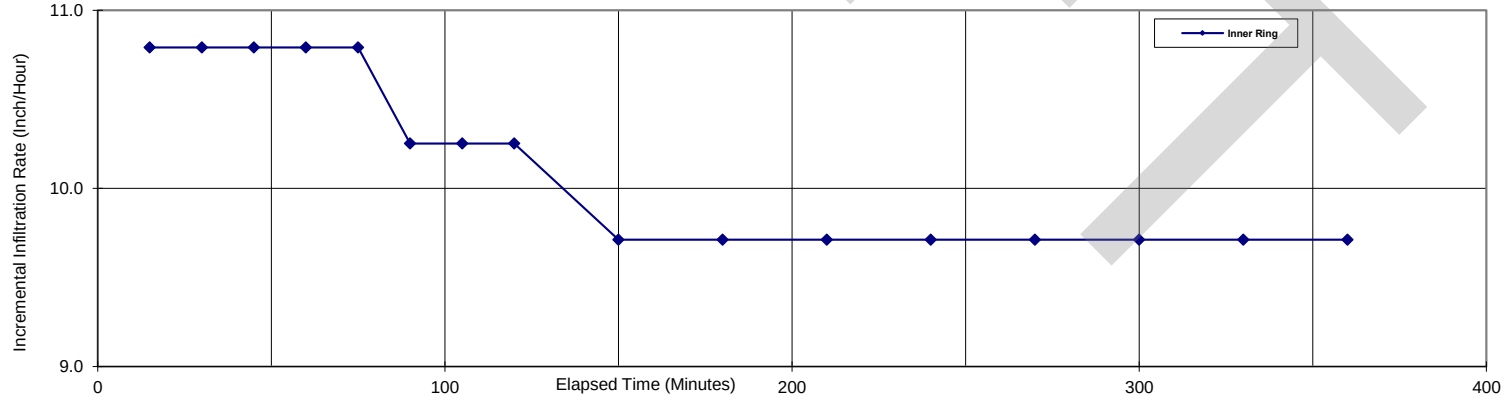


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-16**
DATE:	1/23/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	72

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'8.40"N 80°11'9.70"W
STATION:	1097+31
OFFSET:	-268.91
GROUND ELEVATION:	12.48

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-5	A-3	2

DEPTH TO WATER TABLE (Feet):	3.5				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	4000	12000		8.63	8.63	Sunny
2	15	30	4000	12000		8.63	8.63	Sunny
3	15	45	4000	12000		8.63	8.63	Sunny
4	15	60	4000	12000		8.63	8.63	Sunny
5	15	75	4000	12000		8.63	8.63	Sunny
6	15	90	3000	10000		6.47	7.19	Sunny
7	15	105	3000	10000		6.47	7.19	Sunny
8	15	120	3000	10000		6.47	7.19	Sunny
9	30	150	6000	20000		6.47	7.19	Sunny
10	30	180	6000	20000		6.47	7.19	Sunny
11	30	210	6000	20000		6.47	7.19	Sunny
12	30	240	6000	20000		6.47	7.19	Sunny
13	30	270	6000	20000		6.47	7.19	Sunny
14	30	300	6000	20000		6.47	7.19	Sunny
15	30	330	6000	20000		6.47	7.19	Sunny
16	30	360	6000	20000		6.47	7.19	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

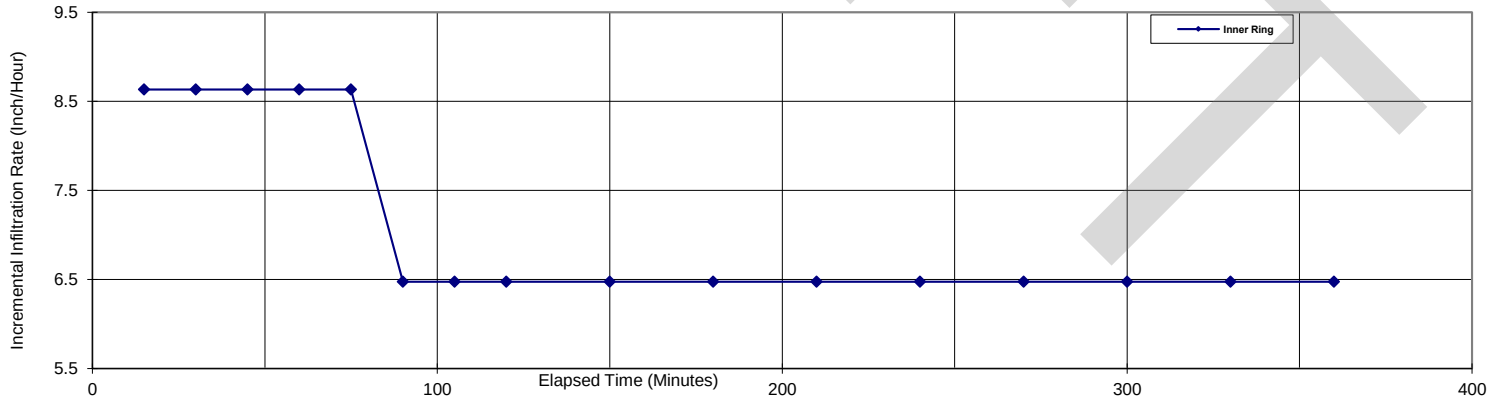


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-17**
DATE:	2/14/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	75

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'5.7"N 80°11'4.83"W
STATION:	1100+15
OFFSET:	129.11
GROUND ELEVATION:	19.67

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	N/A			
PENETRATION OF RINGS INTO GROUND (Inches):	INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):	INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):	INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):	INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	4500	13750		9.71	9.89	Sunny
2	15	30	4500	13750		9.71	9.89	Sunny
3	15	45	4500	13750		9.71	9.89	Sunny
4	15	60	4250	13750		9.17	9.89	Sunny
5	15	75	4250	13750		9.17	9.89	Sunny
6	15	90	4250	13500		9.17	9.71	Sunny
7	15	105	4000	13500		8.63	9.71	Sunny
8	15	120	4000	13500		8.63	9.71	Sunny
9	30	150	8000	26000		8.63	9.35	Sunny
10	30	180	8000	26000		8.63	9.35	Sunny
11	30	210	8000	26000		8.63	9.35	Sunny
12	30	240	8000	25500		8.63	9.17	Sunny
13	30	270	8000	25500		8.63	9.17	Sunny
14	30	300	8000	25500		8.63	9.17	Sunny
15	30	330	8000	25500		8.63	9.17	Sunny
16	30	360	8000	25500		8.63	9.17	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

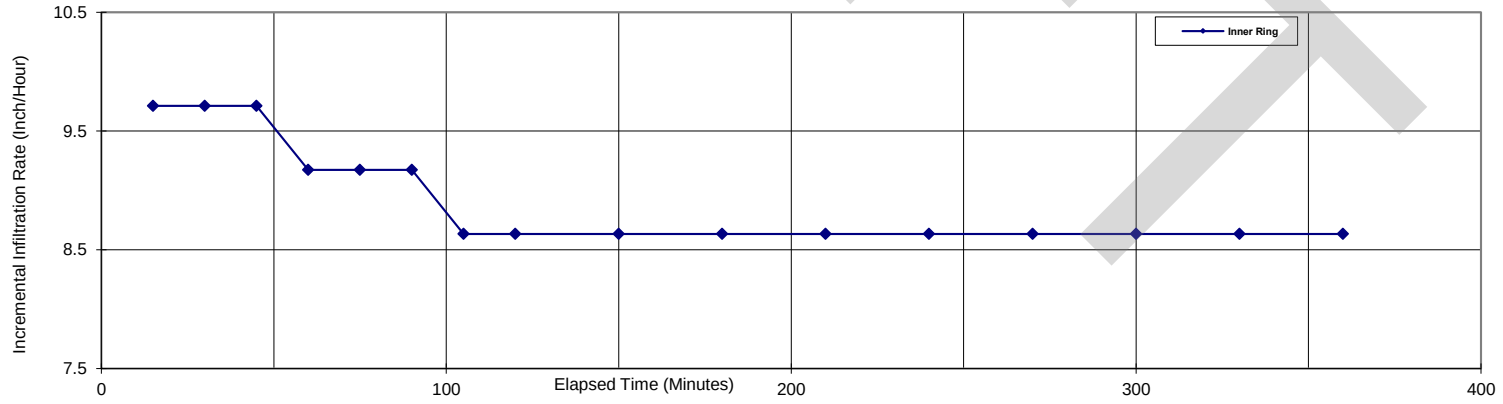


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-18**
DATE:	1/22/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	70

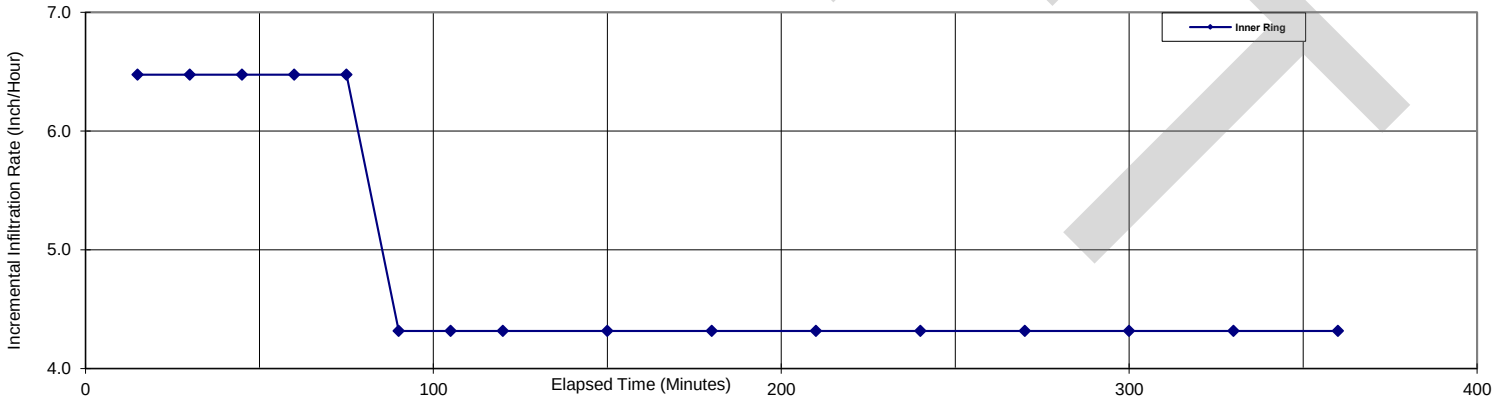
PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'14.12"N 80° 9'4.65"W
STATION:	102+25
OFFSET:	99.43
GROUND ELEVATION:	12.3

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-3	2
2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						Sunny
1	15	15	3000	6000		6.47	4.32	Sunny
2	15	30	3000	6000		6.47	4.32	Sunny
3	15	45	3000	6000		6.47	4.32	Sunny
4	15	60	3000	6000	75	6.47	4.32	Sunny
5	15	75	3000	6000		6.47	4.32	Sunny
6	15	90	2000	5000		4.32	3.60	Sunny
7	15	105	2000	5000		4.32	3.60	Sunny
8	15	120	2000	5000		4.32	3.60	Sunny
9	30	150	4000	10000		4.32	3.60	Sunny
10	30	180	4000	10000		4.32	3.60	Sunny
11	30	210	4000	10000	78	4.32	3.60	Sunny
12	30	240	4000	10000		4.32	3.60	Sunny
13	30	270	4000	10000		4.32	3.60	Sunny
14	30	300	4000	10000		4.32	3.60	Sunny
15	30	330	4000	10000		4.32	3.60	Sunny
16	30	360	4000	10000		4.32	3.60	Sunny

DOUBLE RING INFILTRATION TEST RESULTS



GCME Project No.: 2000-01-16001

TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-19**
DATE:	1/23/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	71

PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'16.36"N 80°11'52.04"W
STATION:	113+24
OFFSET:	-155.53
GROUND ELEVATION:	14.02

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-5	A-3	2

DEPTH TO WATER TABLE (Feet):	N/A			
PENETRATION OF RINGS INTO GROUND (Inches):	INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):	INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):	INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):	INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	8000	26000		17.27	18.71	Sunny
2	15	30	7000	26000		15.11	18.71	Sunny
3	15	45	7000	24500		15.11	17.63	Sunny
4	15	60	6500	24000		14.03	17.27	Sunny
5	15	75	6250	23000		13.49	16.55	Sunny
6	15	90	5750	22500		12.41	16.19	Sunny
7	15	105	5500	22500		11.87	16.19	Sunny
8	15	120	5500	21500		11.87	15.47	Sunny
9	30	150	10000	39000		10.79	14.03	Sunny
10	30	180	9500	38000		10.25	13.67	Sunny
11	30	210	9500	38000		10.25	13.67	Sunny
12	30	240	9500	37000		10.25	13.31	Sunny
13	30	270	9500	37000		10.25	13.31	Sunny
14	30	300	9500	37000		10.25	13.31	Sunny
15	30	330	9250	37000		9.98	13.31	Sunny
16	30	360	9250	37000		9.98	13.31	Sunny

DOUBLE RING INFILTRATION TEST RESULTS

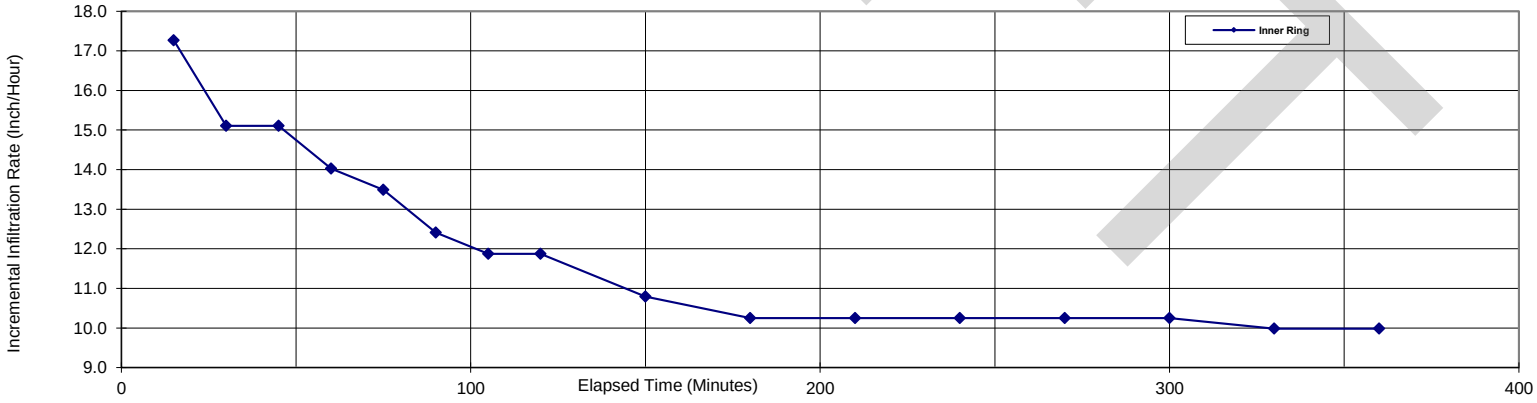


TABLE - 4
DOUBLE RING INFILTRATION TEST RESULTS

TEST No.:	**DRIT-20**
DATE:	1/22/2018
FPID No.:	437153-1-22-01
LIQUID USED:	Water
pH:	6
GROUND TEMPERATURE (°F):	70

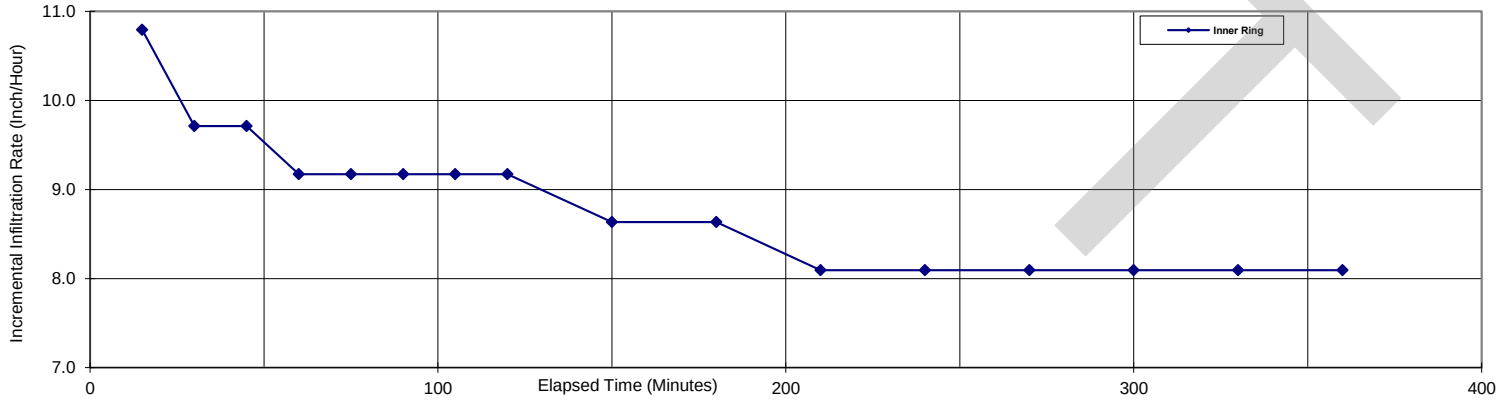
PROJECT NAME:	Sawgrass Expy
TEST LOCATION:	26°18'13.43"N 80°8'48.26"W
STATION:	117+32
OFFSET:	95.58
GROUND ELEVATION:	11.62

GENERAL SUBSURFACE PROFILE		
DEPTH (FEET)	SOIL DESCRIPTION	STRATUM No.
0-0.2	A-8	1
0.2-2	A-2-4	3
2-5	Limestone	4

DEPTH TO WATER TABLE (Feet):	N/A				
PENETRATION OF RINGS INTO GROUND (Inches):		INNER:	3	OUTER:	6
INTERNAL DIAMETER OF RINGS (Inches):		INNER:	12	OUTER:	24
THICKNESS OF RING WALL (Inches):		INNER:	0.125	OUTER:	0.125
AREA OF RINGS (Inches ^ 2):		INNER:	113.10	ANNULAR:	339.29

INCREMENT No.	ELAPSED TIME (MIN.)	TOTAL TIME (MIN.)	FLOW READINGS (ml)		LIQUID TEMPERATURE (°F)	INCREMENTAL INFILTRATION RATE (IN/HOUR)		REMARKS
			INNER RING	ANNULAR SPACE		INNER RING	ANNULAR SPACE	
0		0						
1	15	15	5000	17000		10.79	12.23	Sunny
2	15	30	4500	17000		9.71	12.23	Sunny
3	15	45	4500	16500		9.71	11.87	Sunny
4	15	60	4250	16000		9.17	11.51	Sunny
5	15	75	4250	15750		9.17	11.33	Sunny
6	15	90	4250	15250		9.17	10.97	Sunny
7	15	105	4250	15250		9.17	10.97	Sunny
8	15	120	4250	15000		9.17	10.79	Sunny
9	30	150	8000	29000		8.63	10.43	Sunny
10	30	180	8000	28000		8.63	10.07	Sunny
11	30	210	7500	28000		8.09	10.07	Sunny
12	30	240	7500	27500		8.09	9.89	Sunny
13	30	270	7500	27500		8.09	9.89	Sunny
14	30	300	7500	27000		8.09	9.71	Sunny
15	30	330	7500	27000		8.09	9.71	Sunny
16	30	360	7500	27000		8.09	9.71	Sunny

DOUBLE RING INFILTRATION TEST RESULTS



APPENDIX – A

USDA, SCS SOIL INFORMATION

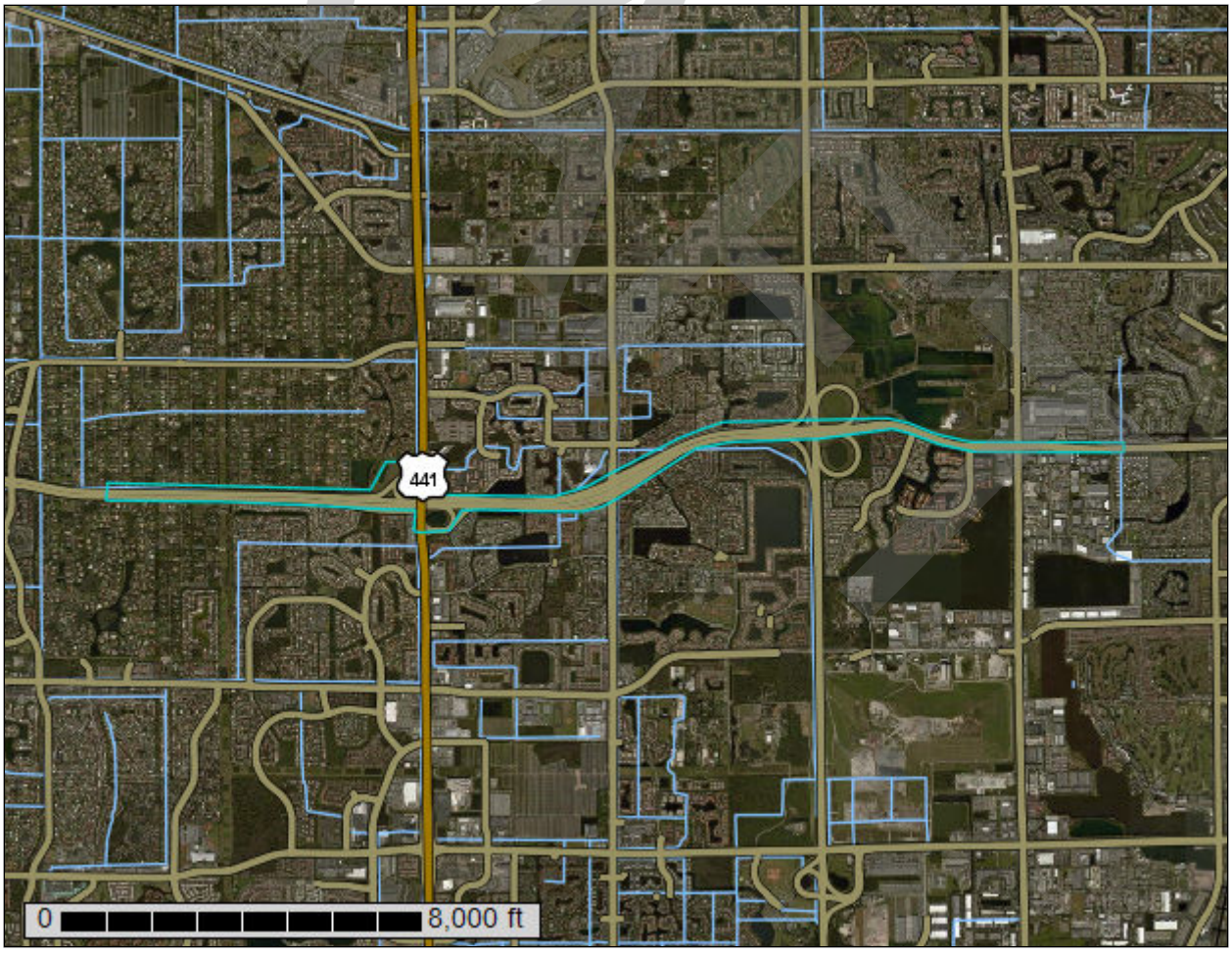
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Broward County, Florida, East Part



August 30, 2018

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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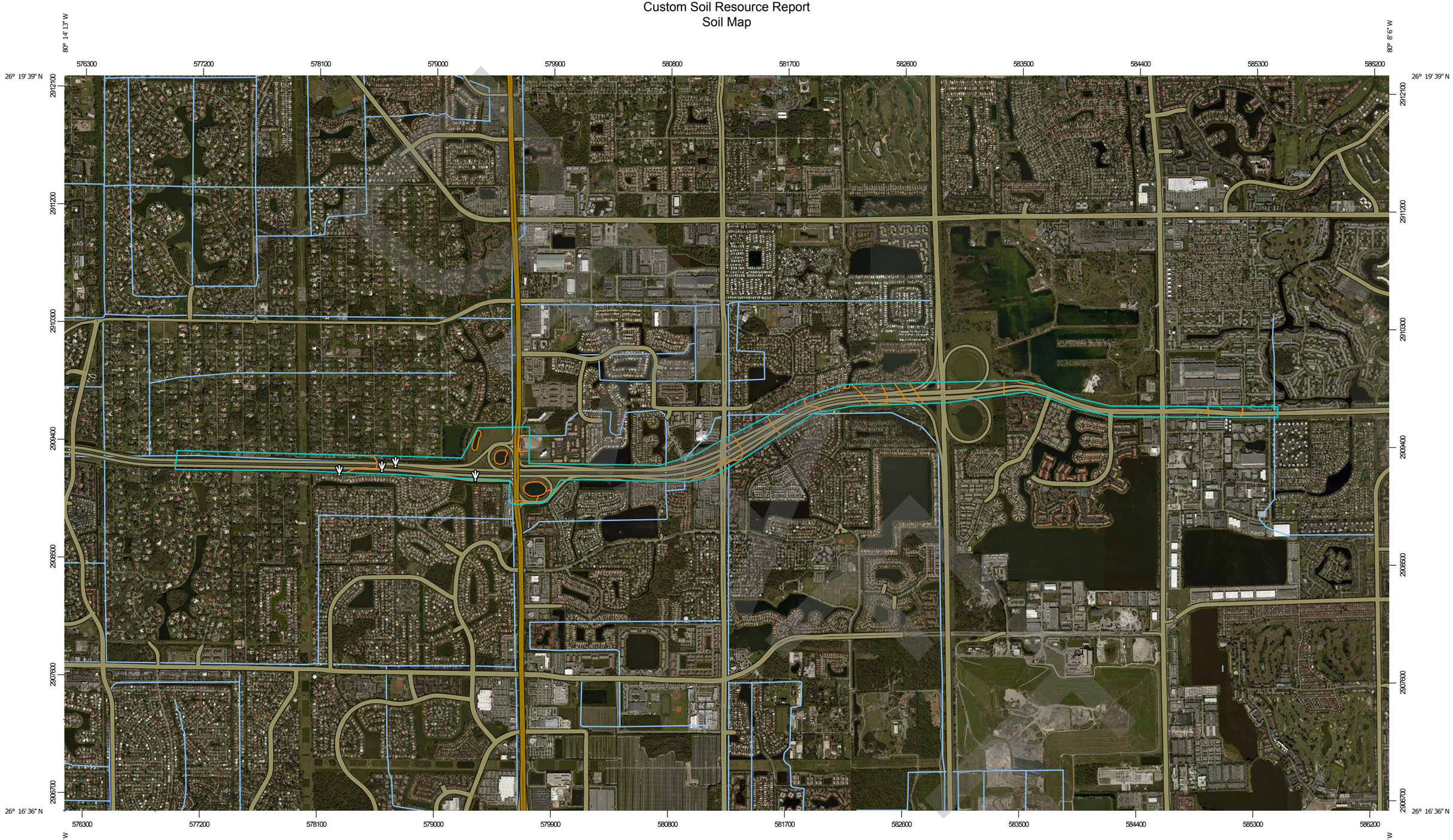
Contents

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:27,400 if printed on B landscape (17" x 11") sheet.

N

Meters
0 400 800 1600 2400

Feet
0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
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- Marsh or swamp
- Mine or Quarry
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Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Broward County, Florida, East Part
Survey Area Data: Version 13, Oct 2, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2014—Feb 11, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5	Boca fine sand, 0 to 2 percent slopes	12.6	3.9%
12	Hallandale fine sand, 0 to 2 percent slopes	51.8	15.9%
15	Immokalee fine sand, 0 to 2 percent slopes	5.6	1.7%
16	Immokalee, limestone substratum-Urban land complex	29.1	9.0%
19	Margate fine sand, occasionally ponded, 0 to 1 percent slopes	182.6	56.3%
29	Pompano fine sand, 0 to 2 percent slopes	0.5	0.2%
36	Udorthents	31.6	9.7%
40	Urban land	2.4	0.7%
99	Water	8.4	2.6%
Totals for Area of Interest		**324.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas

are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Broward County, Florida, East Part

5—Boca fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2svz9
Elevation: 0 to 60 feet
Mean annual precipitation: 42 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Boca and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Boca

Setting

Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Sandy and loamy marine deposits over limestone

Typical profile

A - 0 to 3 inches: fine sand
E - 3 to 14 inches: fine sand
E/B - 14 to 25 inches: fine sand
Btg - 25 to 30 inches: fine sandy loam
2R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 8 to 40 inches to lithic bedrock
Natural drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 4 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Ecological site: South Florida Flatwoods (R155XY003FL)

Forage suitability group: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: Yes

Minor Components

Hallandale
Percent of map unit: 7 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: Yes

Wabasso
Percent of map unit: 6 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Ft. drum
Percent of map unit: 2 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

12—Hallandale fine sand, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 2tzx4
Elevation: 0 to 70 feet
Mean annual precipitation: 60 to 70 inches
Mean annual air temperature: 72 to 79 degrees F
Frost-free period: 360 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition
Hallandale and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hallandale

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits over limestone

Typical profile

A - 0 to 2 inches: fine sand
Eg - 2 to 7 inches: fine sand
Bw - 7 to 12 inches: fine sand
2R - 12 to 22 inches: bedrock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 2 to 20 inches to lithic bedrock
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 5.95 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: Yes

Minor Components

Plantation

Percent of map unit: 5 percent
Landform: Depressions on marine terraces, flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Dania

Percent of map unit: 5 percent
Landform: Marshes on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R156AY010FL)

Hydric soil rating: Yes

15—Immokalee fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2s3lk
Elevation: 0 to 130 feet
Mean annual precipitation: 44 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Immokalee and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Immokalee

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Riser, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 35 inches: fine sand
Bh - 35 to 54 inches: fine sand
BC - 54 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D

Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Minor Components

Basinger
Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: Yes

Wabasso
Percent of map unit: 2 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Pomello
Percent of map unit: 2 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, interfluve, riser
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: Sand Pine Scrub (R155XY001FL)
Other vegetative classification: Sand Pine Scrub (R155XY001FL)
Hydric soil rating: No

Margate
Percent of map unit: 1 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Placid
Percent of map unit: 1 percent
Landform: Depressions on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL)
Hydric soil rating: Yes

16—Immokalee, limestone substratum-Urban land complex

Map Unit Setting

National map unit symbol: 1hn8w
Elevation: 10 to 100 feet
Mean annual precipitation: 60 to 68 inches
Mean annual air temperature: 72 to 79 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Immokalee, limestone substratum, and similar soils: 50 percent
Urban land: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Immokalee, Limestone Substratum

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 5 inches: fine sand
E - 5 to 48 inches: fine sand
Bh - 48 to 58 inches: fine sand
2R - 58 to 62 inches: weathered bedrock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 72 inches to paralithic bedrock
Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D

Forage suitability group: Forage suitability group not assigned (G156AC999FL)
Hydric soil rating: No

Description of Urban Land

Setting
Landform: Marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Linear
Across-slope shape: Linear

Minor Components

Basinger
Percent of map unit: 3 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Immokalee
Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Pompano
Percent of map unit: 2 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Margate
Percent of map unit: 2 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

19—Margate fine sand, occasionally ponded, 0 to 1 percent slopes

Map Unit Setting
National map unit symbol: 2sm5l
Elevation: 0 to 30 feet

Mean annual precipitation: 60 to 70 inches
Mean annual air temperature: 72 to 81 degrees F
Frost-free period: 360 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Margate and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Margate

Setting

Landform: Flats on marine terraces, rises on marine terraces
Landform position (three-dimensional): Tread, talf, rise
Down-slope shape: Linear
Across-slope shape: Concave, convex
Parent material: Sandy marine deposits over limestone

Typical profile

A - 0 to 8 inches: fine sand
E - 8 to 16 inches: fine sand
Bw - 16 to 28 inches: fine sand
C - 28 to 32 inches: very gravelly fine sand
2R - 32 to 42 inches: bedrock

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Calcium carbonate, maximum in profile: 4 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G156AC145FL)
Hydric soil rating: Yes

Minor Components

Basinger

Percent of map unit: 5 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear

Across-slope shape: Concave
Other vegetative classification: Slough (R155XY011FL)
Hydric soil rating: Yes

Plantation

Percent of map unit: 5 percent
Landform: Marshes on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Matlacha

Percent of map unit: 5 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

29—Pompano fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tzw3
Elevation: 0 to 100 feet
Mean annual precipitation: 44 to 65 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Pompano and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pompano

Setting

Landform: Drainageways on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear
Across-slope shape: Linear, concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
C - 4 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: Slough (R155XY011FL)
Hydric soil rating: Yes

Minor Components

Valkaria

Percent of map unit: 4 percent
Landform: Drainageways on flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Linear, concave
Other vegetative classification: Slough (R155XY011FL)
Hydric soil rating: Yes

Anclote

Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave, convex
Across-slope shape: Concave, linear
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL)
Hydric soil rating: Yes

Malabar

Percent of map unit: 4 percent
Landform: — error in exists on —
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Ecological site: Slough (R155XY011FL)
Other vegetative classification: Slough (R155XY011FL)
Hydric soil rating: Yes

Myakka

Percent of map unit: 3 percent
Landform: Drainageways on flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear

Across-slope shape: Linear, concave
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Immokalee

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Riser, talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Riviera

Percent of map unit: 2 percent
Landform: Drainageways on marine terraces, flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Linear, concave
Ecological site: Slough (R155XY011FL)
Other vegetative classification: Slough (R155XY011FL)
Hydric soil rating: Yes

36—Udorthents

Map Unit Setting

National map unit symbol: 1hn9j
Mean annual precipitation: 60 to 68 inches
Mean annual air temperature: 72 to 79 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Altered marine deposits

Typical profile

C - 0 to 57 inches: cobbly sand

Properties and qualities

Slope: 2 to 40 percent
Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Forage suitability group: Forage suitability group not assigned (G156AC999FL)
Hydric soil rating: No

40—Urban land

Map Unit Setting

National map unit symbol: 1hn9n
Mean annual precipitation: 60 to 68 inches
Mean annual air temperature: 72 to 79 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Linear
Across-slope shape: Linear

Minor Components

Matlacha, limestone substratum

Percent of map unit: 5 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

99—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties–Broward County, Florida, East Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
5—Boca fine sand, 0 to 2 percent slopes														
Boca	85	A/D	0-3	Fine sand	SM, SP-SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	89-94-100	8-10- 15	0-0 -0	NP
			3-14	Fine sand	SP-SM, SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	89-94-100	8-10- 15	0-0 -0	NP
			14-25	Fine sand	SP-SM, SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	89-94-100	9-11- 16	0-0 -0	NP
			25-30	Fine sandy loam	SC, SC-SM	A-2-4, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	84-93-100	33-41-48	21-27-33	5-10-15
			30-40	Bedrock	—	—	—	—	—	—	—	—	—	—
12—Hallandale fine sand, 0 to 2 percent slopes														
Hallandale	90	B/D	0-2	Fine sand	SM, SP-SM	A-2-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	89-94-100	11-14-19	0-0 -0	NP
			2-7	Fine sand, sand	SM, SP-SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	88-94-100	10-13-19	0-0 -0	NP
			7-12	Fine sand, sand	SM, SP-SM	A-2-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	89-94-100	11-14-19	0-0 -0	NP
			12-22	Bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Broward County, Florida, East Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
15—Immokalee fine sand, 0 to 2 percent slopes														
Immokalee	90	B/D	0-6	Fine sand	SP-SM, SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	89-94-100	8-10- 16	0-0 -0	NP
			6-35	Fine sand	SP-SM, SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	88-94-99	7- 9- 14	0-0 -0	NP
			35-54	Fine sand	SP-SM, SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	89-94-100	9-11- 17	0-0 -0	NP
			54-80	Fine sand, loamy fine sand, sand	SM, SP-SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	88-94-100	9-12- 20	0-0 -0	NP
16—Immokalee, limestone substratum-Urban land complex														
Immokalee, limestone substratum	50	A/D	0-5	Fine sand	SP, SP-SM	A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	85-92-99	2- 6- 10	0-7 -14	NP
			5-48	Sand, fine sand	SP, SP-SM	A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	85-92-99	2- 6- 10	0-7 -14	NP
			48-58	Sand, fine sand	SM, SP-SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	80-90-99	5-10- 15	0-7 -14	NP
			58-62	Weathered bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Broward County, Florida, East Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
19—Margate fine sand, occasionally ponded, 0 to 1 percent slopes														
Margate	85	A/D	0-8	Fine sand	SP-SM, SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	90-94-100	9-11- 17	0-0 -0	NP
			8-16	Fine sand, sand	SM, SP-SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	88-94-100	9-11- 16	0-0 -0	NP
			16-28	Fine sand, sand	SP-SM, SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	88-94-100	9-11- 17	0-0 -0	NP
			28-32	Very gravelly fine sand, very gravelly sand	GP-GM, GW	A-2-4, A-1-b, A-1-a	0- 6- 11	0- 6- 11	35-48-57	29-43-53	26-41-52	3- 7- 11	0-0 -0	NP
			32-42	Bedrock	—	—	—	—	—	—	—	—	—	—
29—Pompano fine sand, 0 to 2 percent slopes														
Pompano	80	A/D	0-4	Fine sand	SP-SM, SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	89-94-100	6-10- 16	0-0 -0	NP
			4-80	Fine sand, sand	SM, SP-SM	A-3, A-2-4	0- 0- 0	0- 0- 0	100-100 -100	100-100 -100	87-94-100	6-10- 16	0-0 -0	NP
36—Udorthents														
Udorthents	100	A	0-57	Cobbly sand	GP-GM, SP, SP-SM	A-1-b	0- 1- 2	5-10- 15	50-60-70	40-50-60	30-40-50	2- 7- 12	0-7 -14	NP

APPENDIX – B

GROUNDWATER INFORMATION

TABLE -B1

Groundwater Information

Project: FTE Sawgrass PD&E - US441 to Powerline Road

Boring #	Drilled Date	GWT Depth (ft)	Water Stain (ft)	GWT Elev. (ft)	SHGWT Elev. (ft) *	Station	Elevation	Offset	Latitude	Longitude
DRIT-1	2/19/2018	3.33	2.50	9.61	10.44	975+29	12.94	-121.14	26°18'3.61"N	80°13'20.63"W
DRIT-2	2/19/2018	3.17	2.67	8.28	8.78	975+31	11.45	128.26	26°18'1.14"N	80°13'20.65"W
R-101A	8/18/2017	2.67	2.50	10.02	10.19	984+03	12.69	7.6	26°18'2.28"N	80°13'11.06"W
R-201A	8/18/2017	3.67	3.50	8.32	8.49	985+68	11.99	118.14	80°13'0.02"W	80°13'9.21"W
R-301A	8/18/2017	2.67	2.42	9.47	9.72	988+07	12.14	-112.82	26°18'3.26"N	80°13'6.59"W
R-101B	8/18/2017	3.25	3.00	9.46	9.71	994+01	12.71	7.05	26°18'2.11"N	80°13'0.02"W
DRIT-4	2/19/2018	2.00	1.00	9.18	10.18	994+72	11.18	124.09	26°18'0.88"N	80°12'59.33"W
DRIT-3	2/19/2018	2.83	2.00	9.19	10.02	995+35	12.02	-126.35	26°18'3.35"N	80°12'58.59"W
R-201B	8/18/2017	2.33	2.00	9.70	10.03	995+63	12.03	111.53	26°18'0.95"N	80°12'58.18"W
R-301B	8/18/2017	2.50	2.25	9.67	9.92	998+05	12.17	-113.45	26°18'3.09"N	80°12'55.58"W
R-101	8/15/2017	2.50		9.84		1003+99	12.34	7.76	26°18'1.88"N	80°12'49.01"W
R-201	8/16/2017	2.25	2.00	9.47	9.72	1005+84	11.72	121.44	26°18'0.68"N	80°12'47.20"W
R-301	8/15/2017	3.25		9.35		1008+04	12.6	-110.83	26°18'2.79"N	80°12'44.61"W
R-102	8/15/2017	3.67		9.34		1009+77	13.01	10.66	26°18'1.51"N	80°12'42.76"W
R-202	8/16/2017	2.00	1.83	9.67	9.84	1015+06	11.67	120.6	26°18'0.14"N	80°12'37.05"W
R-103	8/15/2017	3.17		8.66		1015+92	11.83	6.91	26°18'1.08"N	80°12'36.02"W
R-302	8/15/2017	3.83		9.25		1018+02	13.08	-123.85	26°18'2.23"N	80°12'33.63"W
R-104	8/15/2017	2.75		9.71		1021+87	12.46	4.7	26°18'0.69"N	80°12'29.47"W
DRIT-5	2/16/2018	2.00	1.00	9.20	10.20	1025+49	11.2	-201.57	26°18'2.48"N	80°12'25.43"W
R-203	8/16/2017	6.83	5.75	10.12	11.20	1026+09	16.95	109.72	26°17'59.27"N	80°12'24.94"W
R-303	8/15/2017	9.08		9.59		1027+75	18.67	-112.53	26°18'1.61"N	80°12'22.99"W
R-105	8/15/2017	7.08		14.36		1028+89	21.44	11	26°18'0.31"N	80°12'21.86"W
DRIT-6	2/19/2018	2.25	1.00	10.60	11.85	1030+09	12.85	148.92	26°17'58.81"N	80°12'20.56"W
DRIT-7	2/16/2018	3.00	2.33	8.93	9.60	1032+47	11.93	-276.5	26°18'2.95"N	80°12'17.81"W
R-204	8/16/2017	3.75	3.17	9.91	10.49	1035+92	13.66	166.56	26°17'58.56"N	80°12'14.16"W
R-304	8/15/2017	1.92		10.01		1037+85	11.93	-176.19	26°18'1.69"N	80°12'11.91"W
DRIT-8	2/16/2018	4.00	3.50	9.20	9.70	1039+34	13.2	-840.72	26°18'8.46"N	80°12'10.34"W
DRIT-9	2/19/2018	4.83	4.00	9.49	10.32	1039+79	14.32	174.08	26°17'58.41"N	80°12'9.85"W
DRIT-10	2/22/2018	3.42	3.00	10.58	11.00	1042+62	14	702.3	26°17'53.18"N	80°12'6.75"W

* - SHGWT Based on Water Stain.

TABLE -B1

Groundwater Information

Project: FTE Sawgrass PD&E - US441 to Powerline Road

Boring #	Drilled Date	GWT Depth (ft)	Water Stain (ft)	GWT Elev. (ft)	SHGWT Elev. (ft) *	Station	Elevation	Offset	Latitude	Longitude
R-205	8/17/2017	0.83	0.58	12.15	12.40	1045+88	12.98	196.58	26°17'58.82"N	80°12'3.11"W
R-305	8/15/2017	4.25		10.21		1047+97	14.46	-158.74	26°18'1.50"N	80°12'0.90"W
DRIT-11	2/16/2018	1.75	1.00	9.19	9.94	1050+10	10.94	-217.2	26°18'2.29"N	80°11'58.52"W
DRIT-12	2/22/2018	2.83	2.00	9.28	10.11	1051+13	12.11	324.06	26°17'56.93"N	80°11'57.38"W
R-206	8/17/2017	6.25	6.00	9.63	9.88	1055+92	15.88	124.35	26°17'58.85"N	80°11'52.06"W
R-306	8/15/2017	3.08		10.95		1058+03	14.03	-148.18	26°18'1.50"N	80°11'49.81"W
R-107	8/16/2017	3.50	3.33	9.67	9.84	1060+14	13.17	9.43	26°18'0.06"N	80°11'47.62"W
R-207	8/17/2017	1.83	1.67	10.40	10.56	1065+81	12.23	123.78	26°17'58.89"N	80°11'41.15"W
R-307	8/14/2017	2.00		8.93		1067+90	10.93	-131.59	26°18'1.35"N	80°11'38.97"W
R-108	8/16/2017	2.33	2.08	9.93	10.18	1069+12	12.26	7.8	26°18'0.16"N	80°11'37.70"W
R-208	8/17/2017	1.67	1.58	9.99	10.08	1076+00	11.66	182.77	26°17'58.41"N	80°11'29.99"W
R-109	8/16/2017	4.75	4.33	10.97	11.39	1077+83	15.72	11.87	26°18'0.22"N	80°11'28.10"W
R-308	8/14/2017	2.50		10.99		1078+87	13.49	-147.56	26°18'1.68"N	80°11'27.03"W
DRIT-13	2/16/2018	2.00	1.00	9.30	10.30	1083+54	11.3	-190.5	26°18'2.75"N	80°11'22.24"W
DRIT-14	2/22/2018	3.00	2.00	9.96	10.96	1085+44	12.96	160.29	26°17'59.78"N	80°11'19.36"W
R-209	8/17/2017	3.25	3.08	9.97	10.14	1086+27	13.22	181.27	26°17'59.87"N	80°11'18.44"W
R-309	8/14/2017	4.17		9.95		1088+03	14.12	-156.79	26°18'3.22"N	80°11'17.55"W
DRIT-15	2/22/2018	2.67	2.00	9.53	10.20	1091+10	12.2	231.76	26°18'0.98"N	80°11'12.92"W
R-210	8/17/2017	1.83	1.75	9.65	9.73	1095+47	11.48	223.13	26°18'2.98"N	80°11'8.25"W
DRIT-16	2/15/2018	3.42	3.00	9.06	9.48	1097+31	12.48	-268.91	26°18'8.21"N	80°11'9.33"W
R-310	8/14/2017	2.00		10.46		1098+12	12.46	-245.15	26°18'8.33"N	80°11'8.39"W
DRIT-17	2/15/2018	3.17	2.67	16.50	17.00	1100+15	19.67	129.11	26°18'6.22"N	80°11'4.43"W
R-110	8/16/2017	8.58	3.83	18.18	22.93	1104+84	26.76	-21.88	26°18'9.78"N	80°11'0.72"W
R-211	8/17/2017	5.42	5.17	9.48	9.73	1106+04	14.9	176.21	26°18'8.86"N	80°10'58.61"W
R-212	8/17/2017	1.25	1.00	10.27	10.52	1116+27	11.52	137.24	26°18'14.03"N	80°10'49.21"W
R-213	8/16/2017	1.75	1.33	9.64	10.06	1125+93	11.39	150.76	26°18'16.74"N	80°10'39.31"W
R-313	8/14/2017	6.25		9.83		1128+14	16.08	-108.79	26°18'19.43"N	80°10'37.40"W
R-214	8/16/2017	6.17	6.00	9.70	9.87	1136+18	15.87	57.39	26°18'18.35"N	80°10'28.62"W
R-314	8/14/2017	1.42		15.76		1137+97	17.18	-106	26°18'19.97"N	80°10'26.52"W

* - SHGWT Based on Water Stain.

TABLE -B1

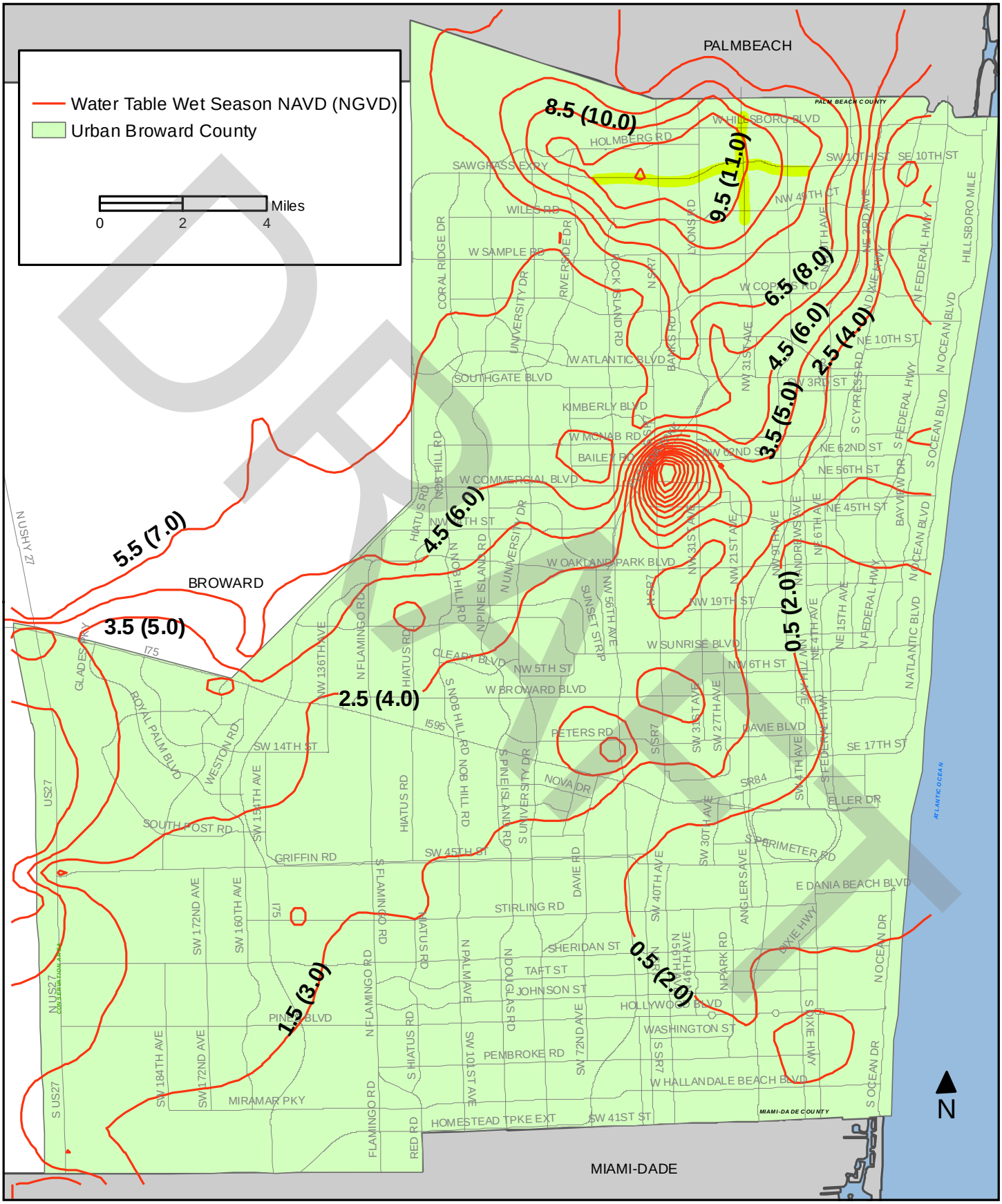
Groundwater Information

Project: FTE Sawgrass PD&E - US441 to Powerline Road

Boring #	Drilled Date	GWT Depth (ft)	Water Stain (ft)	GWT Elev. (ft)	SHGWT Elev. (ft) *	Station	Elevation	Offset	Latitude	Longitude
R-215	8/16/2017	5.58	5.33	10.23	10.48	1146+37	15.81	63.12	26°18'18.63"N	80°10'17.29"W
R-315	8/14/2017	4.25		7.54		1148+13	11.79	-166.08	26°18'21.08"N	80°10'15.44"W
R-216	8/16/2017	2.75	2.42	8.33	8.66	1155+86	11.08	163.94	26°18'18.09"N	80°10'6.72"W
R-316	8/14/2017	3.67		8.01		1158+12	11.68	-149.1	26°18'21.38"N	80°10'4.44"W
R-217	8/16/2017	2.00	2.00	8.00	8.00	54+85	10	69.46	26°18'19.47"N	80° 9'55.77"W
R-317	8/14/2017	4.83		7.46		56+89	12.29	-145	26°18'21.78"N	80° 9'53.75"W
BHP-6	2/9/2018	4.67		8.63		60+99	13.3	90.26	26°18'19.95"N	80° 9'49.02"W
R-218	8/17/2017	5.17	5.00	6.12	6.29	64+95	11.29	57.36	26°18'20.02"N	80° 9'45.00"W
R-318	8/14/2017	6.33		6.92		66+69	13.25	-126.75	26°18'21.14"N	80° 9'42.56"W
R-219	8/17/2017	4.50	4.33	7.89	8.06	74+86	12.39	21.96	26°18'17.06"N	80° 9'34.70"W
R-319	8/14/2017	3.33		8.04		76+96	11.37	-126.67	26°18'17.78"N	80° 9'31.90"W
R-220	8/17/2017	5.17	5.00	8.27	8.44	84+34	13.44	38.07	26°18'14.69"N	80° 9'24.48"W
R-320	8/14/2017	4.67		6.98		86+95	11.65	-119.92	26°18'16.22"N	80° 9'21.60"W
BHP-7	2/9/2018	3.67		7.57		94+52	11.24	-144.63	26°18'16.52"N	80° 9'13.29"W
R-221	8/17/2017	3.25	3.08	7.75	7.92	95+07	11	40.79	26°18'14.64"N	80° 9'12.82"W
R-321	8/14/2017	5.42		7.59		97+19	13.01	-166.83	26°18'16.52"N	80° 9'10.25"W
DRIT-18	2/15/2018	4.33	3.00	7.97	9.30	102+25	12.3	99.43	26°18'14.19"N	80° 9'4.76"W
DRIT-19	2/15/2018	6.00	5.33	8.02	8.69	113+24	14.02	-155.53	26°18'16.31"N	80° 8'52.62"W
DRIT-20	2/15/2018	5.67	5.00	5.95	6.62	117+32	11.62	95.58	26°18'13.79"N	80° 8'48.23"W

* - SHGWT Based on Water Stain.

WATER TABLE MAP - AVERAGE WET SEASON



Division Name: Planning and Environmental Regulation
Department Name: Environmental Protection and Growth Management

This map is for conceptual purposes only and should not be used for legal boundary determinations.
Elevation converted from NGDV to NAVD using the FEMA approved conversion factor for Broward County of (-) 1.5

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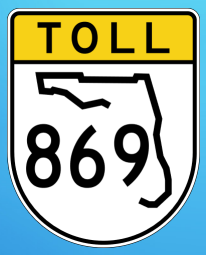

FDOT

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